

# PLC Connection Guide

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# AIBUS

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

## HMI Setting:

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

Online Simulator	YES	
Extend address mode	NO	

## PLC Setting:

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

## Device address:

### AI-518

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

## Wiring diagram:

RS-485:

MT8000 PLC[485]

9P D-SUB

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

AI-518/518P

RS485 port

4	COMM A
3	COMM B

# Allen-Bradley CompactLogix / FlexLogix

Allen-Bradley CompactLogix, FlexLogix CH0 DF1

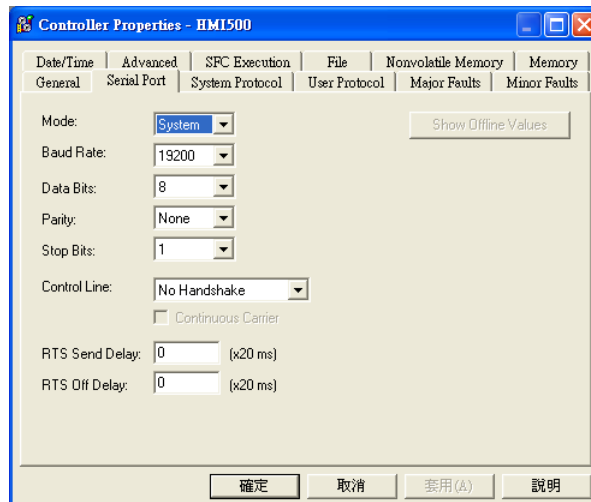
<http://www.ab.com>

## 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	<b>DF1 Full Duplex protocol 19200, None, 8, 1 (default)</b> <b>Error Check: BCC, Station Address: 1</b>
--------------------	--



## Device address:

Bit/Word	Device Type	Format	Range	Memo
B	B_BOOL	ffddddd(dd)	File no. ff: 3, 10~255 Element no. ddd: 0~255 Bit no. (dd): 0~15	Bit data file
B	N_BOOL	ffddddd(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	ffddddd	File no. fff: 3, 10~255 Element no. ddd: 0~255	Bit data file word level
DW	Tx.PRE	ffddddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Preset Value (T4, T10~255)
DW	Tx.ACC	ffddddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	ffddddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	ffddddd	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	Fffddddd	File no. fff:0~255 Element no. ddd:0~255	Integer data file (N7, 10~255)

## Wiring diagram:

RS-232: ControlLogix, CompactLogix CPU CH0

MT8000 RS232  
9P D-SUB Female

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

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

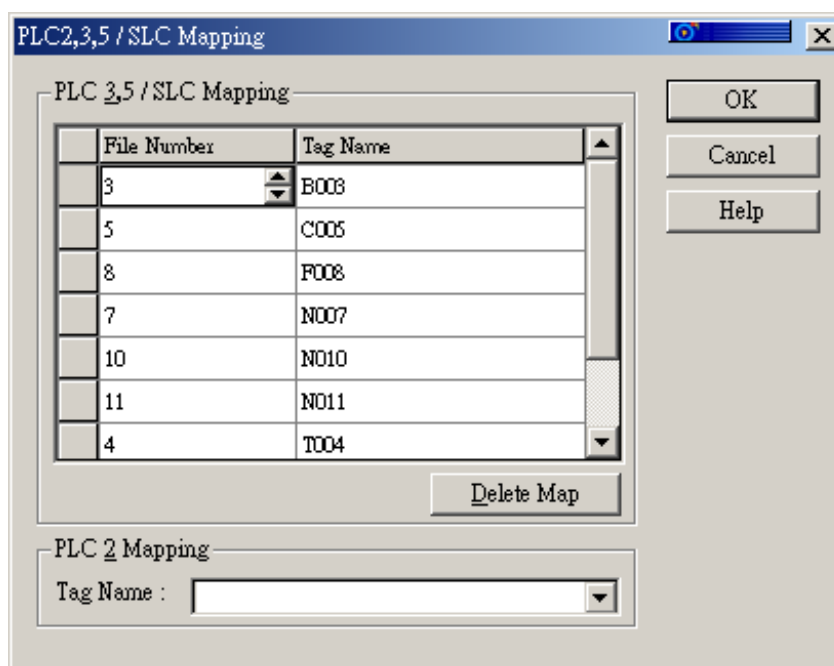
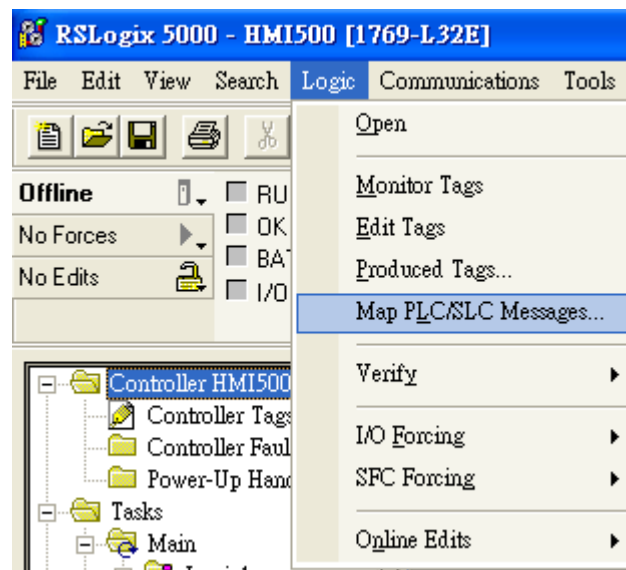
RS Logix 5000 setting

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

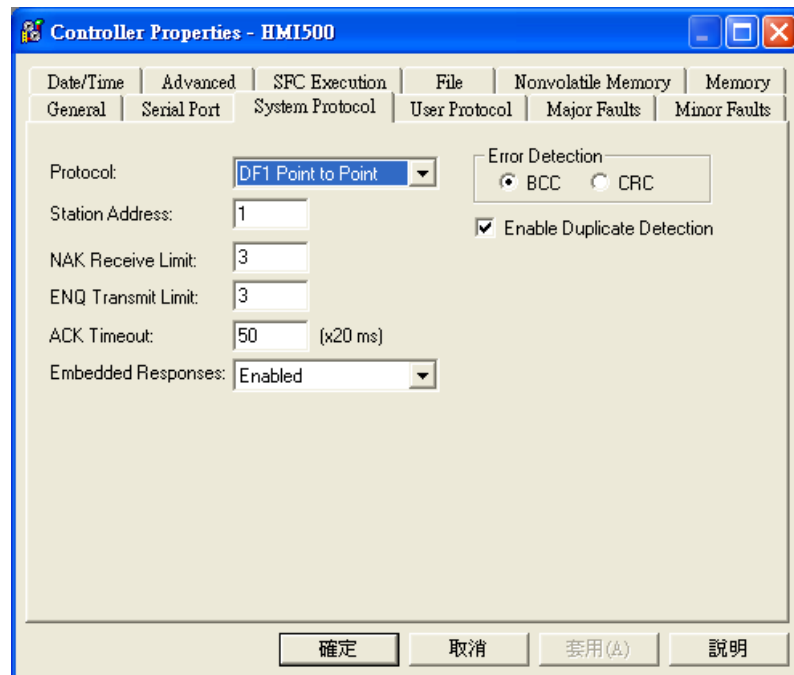
1. From the Logic menu, choose Map PLC Messages.

2. In the Mapping frame, enter the File Number and Tag Name to be mapped.
3. Click on OK to configure the mapping.

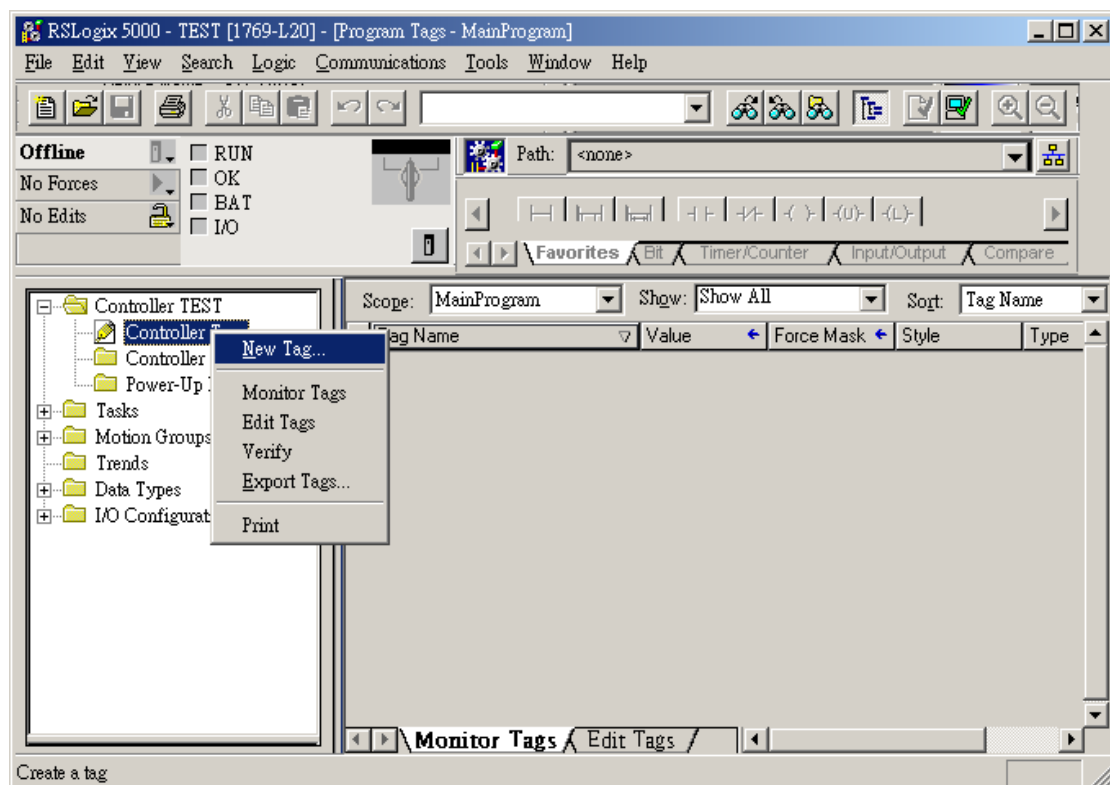




ControlLogix, CompactLogix CPU CH0 setting:



Create the Tag:



**New Tag** [X]

Name:  OK

Description:  Cancel

Tag Type: ☒ Base ☐ Alias ☐ Produced ☐ Consumed

2 consumers

Data Type:  Configure...

Scope:

Style:

**Select Data Type** [X]

Data Types:

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  
INTEGRATOR

Array Dimensions

Dim 0	Dim 1	Dim 2
<input type="text" value="255"/>	<input type="text" value="0"/>	<input type="text" value="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	<b>DF1 Full Duplex protocol 19200, None, 8, 1 (default)</b> <b>Error Check: CRC</b>
--------------------	--

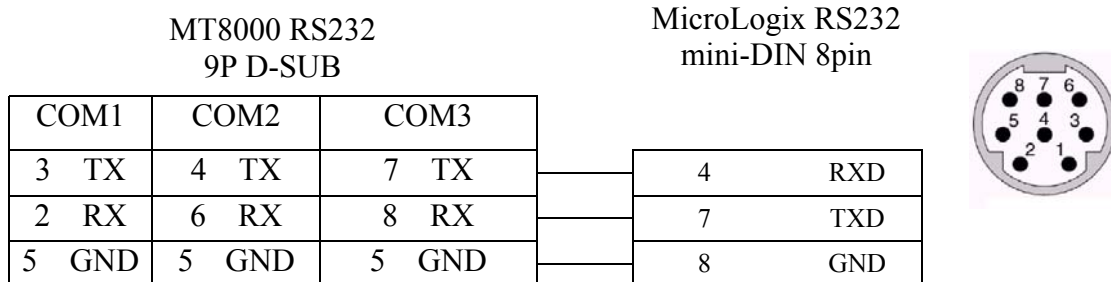
## Device address:

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)

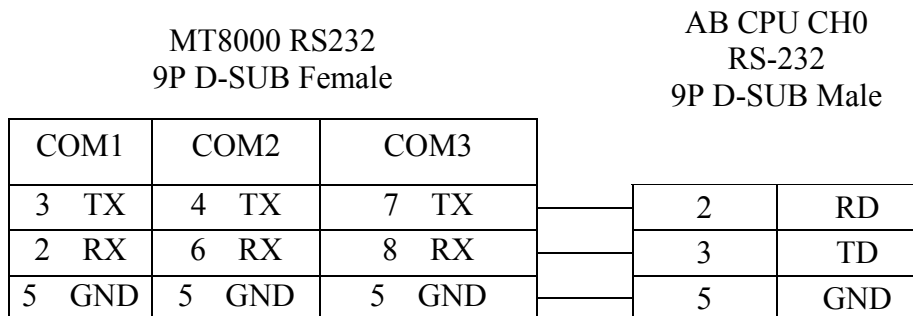
Bit/Word	Device Type	Format	Range	Memo
W	CfnPV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Accumulator Value
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:0~254 Element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

## Wiring diagram:

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



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



# Allen-Bradley DH485

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

<http://www.ab.com>

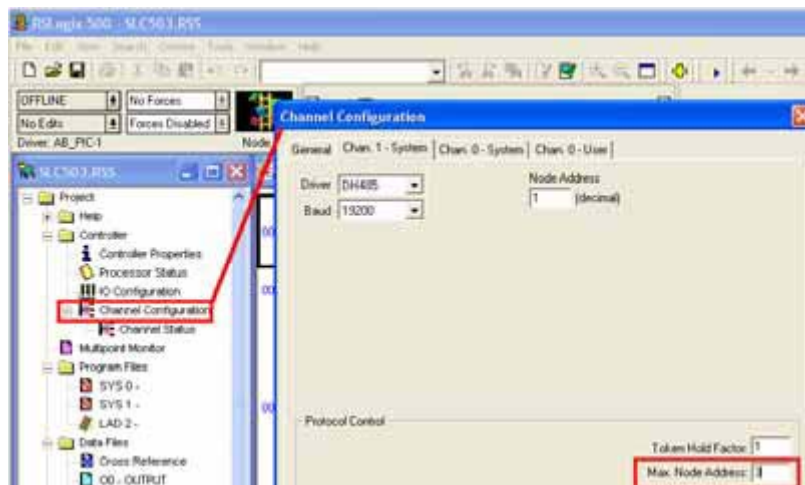
## HMI Setting:

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	<b>DH485 protocol 19200 (default)</b> <b>Set the Max. Node Address as exactly how many PLCs you have.</b>
--------------------	--



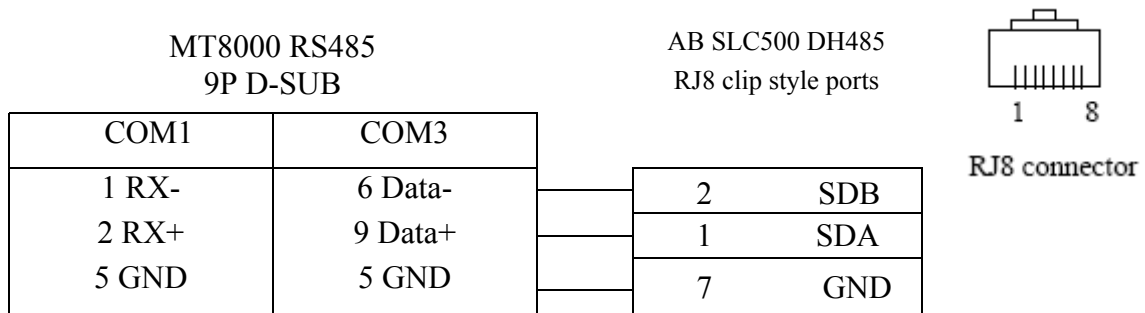
## Device address:

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

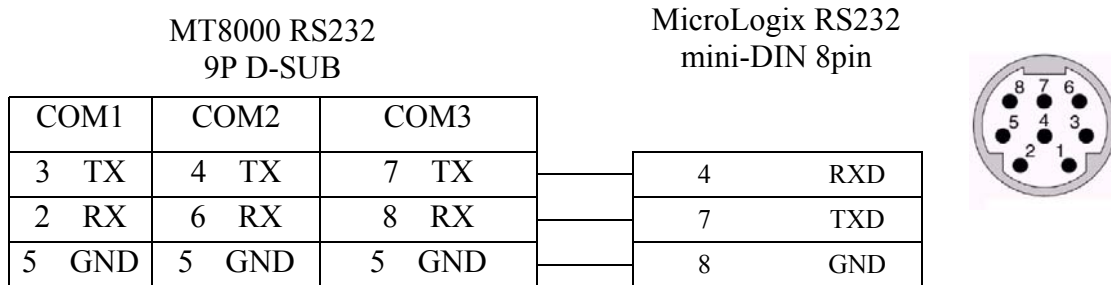
## Wiring diagram:

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

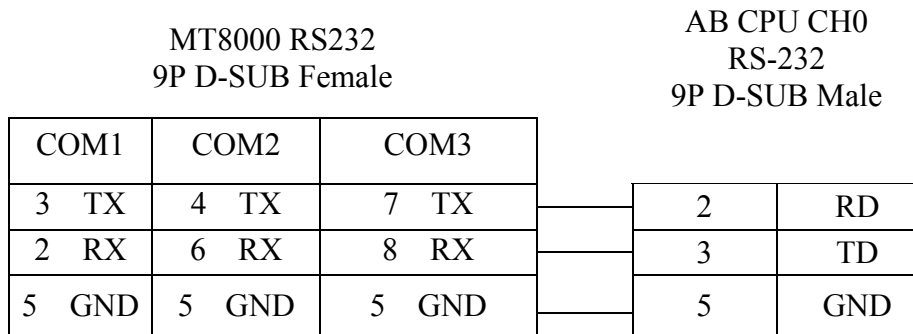
MT8000 can't connect to 1747-AIC PERIPHERAL PORT



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



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



Caution: AB DH485 supports MT8000 X series only.

# Allen-Bradley EtherNet/IP CompactLogix

Allen-Bradley ControlLogix, CompactLogix, FlexLogix 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	Timer Preset Value (T4, T10~255)



			Element no. ddd: 0~255	
DW	Tx.ACC	ffffdd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	ffffdd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	ffffdd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Accumulator Value (C5, C10~255)

## Wiring diagram:

Ethernet:

**MT8000 Ethernet**   **Wire color**

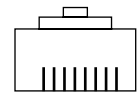
**RJ45**

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

**Ethernet Hub or Switch**

**RJ45**

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



1      8  
RJ45  
connector

Ethernet: Direct connect (crossover cable)

**MT8000 Ethernet**   **Wire color**

**RJ45**

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

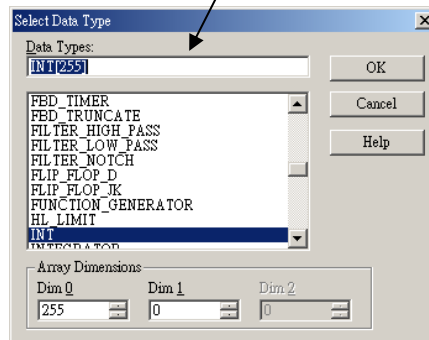
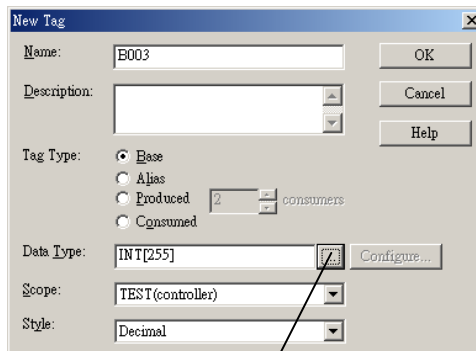
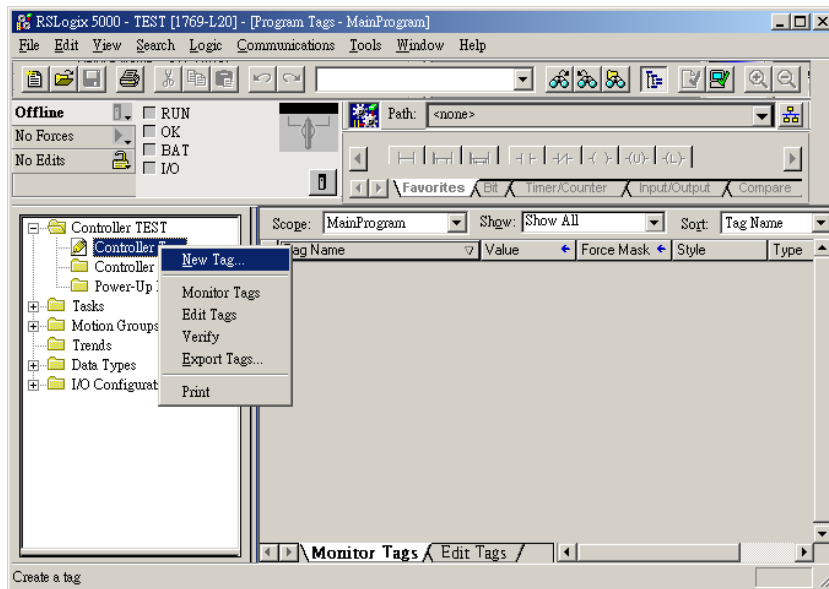
**CPU Ethernet port**

**RJ45**

3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
8	BD3-

RSLogix 5000 setting

Create the Tag:



# 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	<b>Port Setting: 10/100 Mbps Full Duplex/Half Duplex</b>
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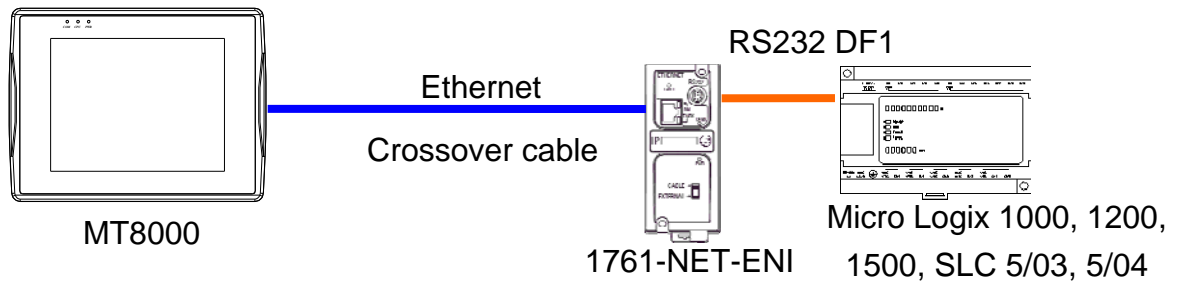
## Device address:

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	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)
-------------	-----	--------	---	---------------------------------------

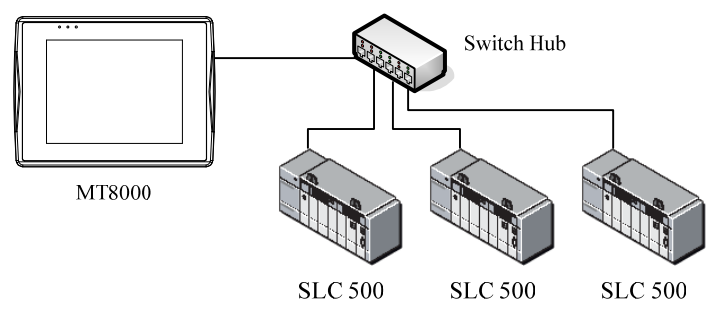
## Wiring diagram:

Ethernet: Direct connect (crossover cable)

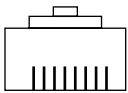


MT8000 Ethernet RJ45			Wire color			PLC RJ45		
1	TX+	White/Orange				3	RX+	
2	TX-	Orange				6	RX-	
3	RX+	White/Green				1	TX+	
4	BD4+	Blue				4	BD4+	
5	BD4-	White/Blue				5	BD4-	
6	RX-	Green				2	TX-	
7	BD3+	White/Brown				7	BD3+	
8	BD3-	Brown				8	BD3-	

Ethernet:



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



1 8  
RJ45  
connector

# 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	<b>DF1 Full Duplex protocol 19200, None, 8, 1 (default)</b>
--------------------	---

## 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

# 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	<b>RK 512 Protocol, 19200, 8, 1, EVEN</b>
--------------------	---

## Device address:

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

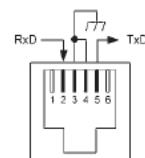
## Wiring diagram:

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

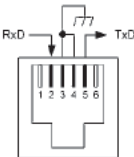
Stepnet

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



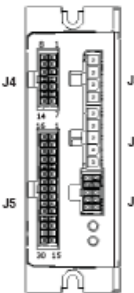
Accelnet Micro

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:

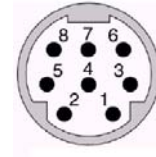
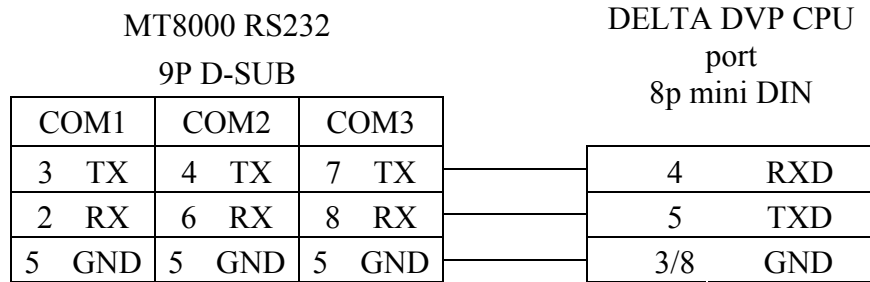
Communication mode	
--------------------	--

## 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

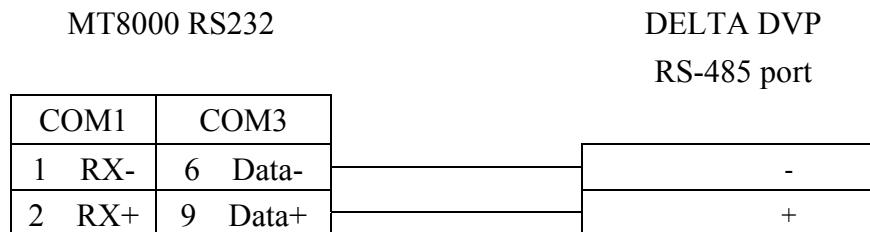
## Wiring diagram:

### 1. RS232: CPU port



8Pin Mini-Din Female

### 2. RS485: CPU port



# 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:

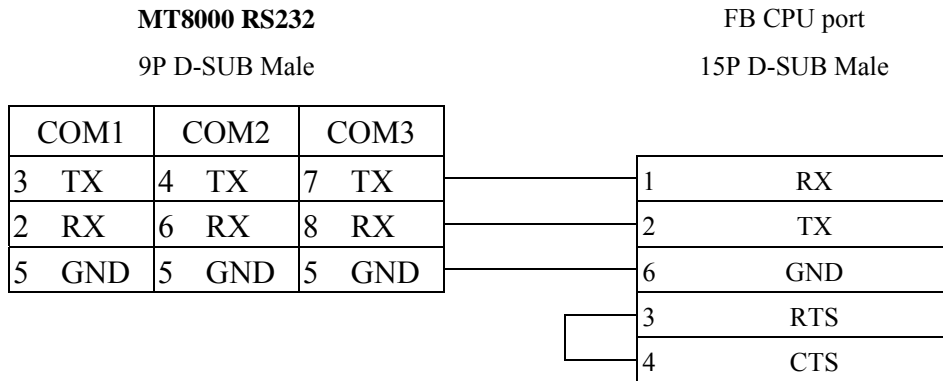
Communication mode	
--------------------	--

## Device address:

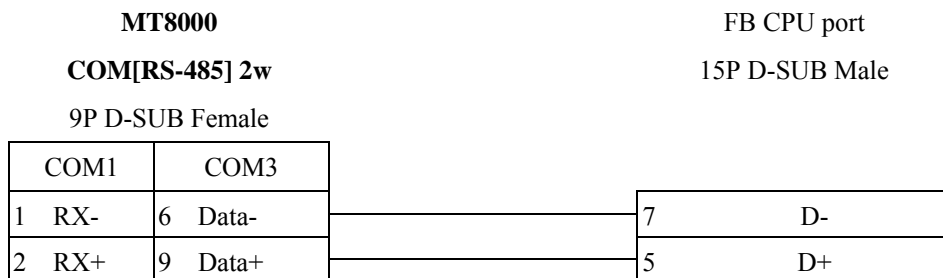
Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	ddd : 0~9999	Input
B	Y	ddd	ddd : 0~9999	Output
B	M	ddd	ddd : 0~9999	Internal Relay
B	S	ddd	ddd : 0~9999	Step Relay
B	T	ddd	ddd : 0~9999	Timer
B	C	ddd	ddd : 0~9999	Counter
W	R	ddd	ddd : 0~9999	Data Register
W	D	ddd	ddd : 0~9999	Data Register
W	RT	ddd	ddd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

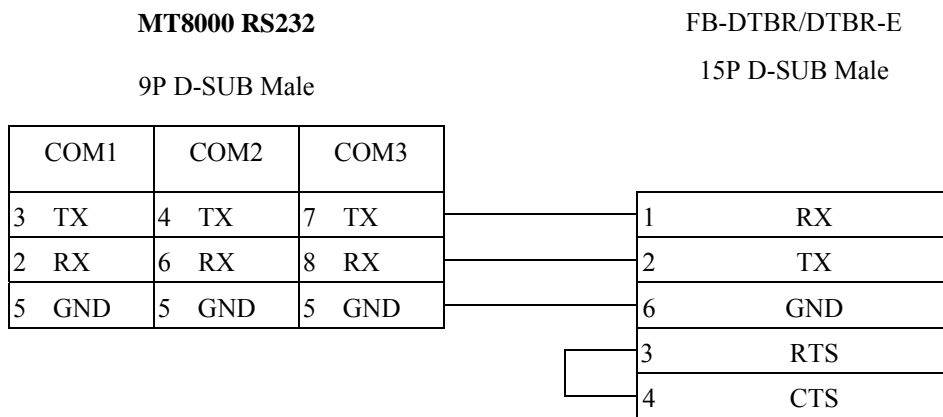
### 1. RS232: CPU port



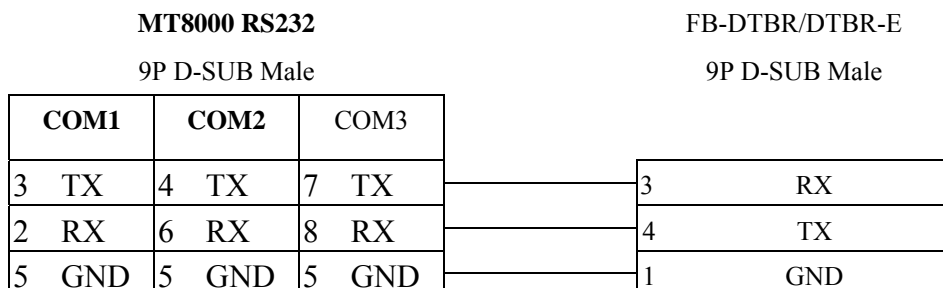
### 2. RS485: CPU port



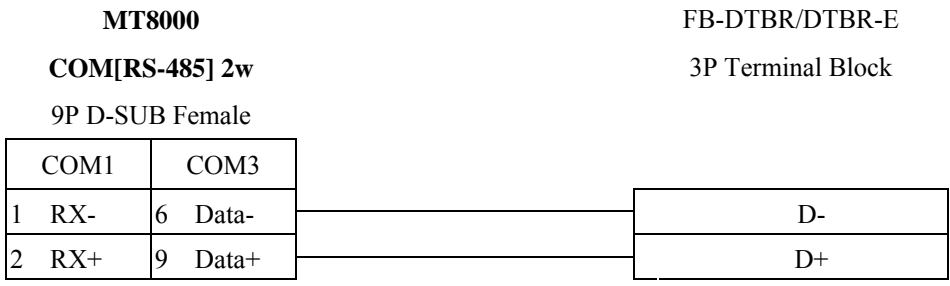
### 3. RS232: FB-DTBR/DTBR-E



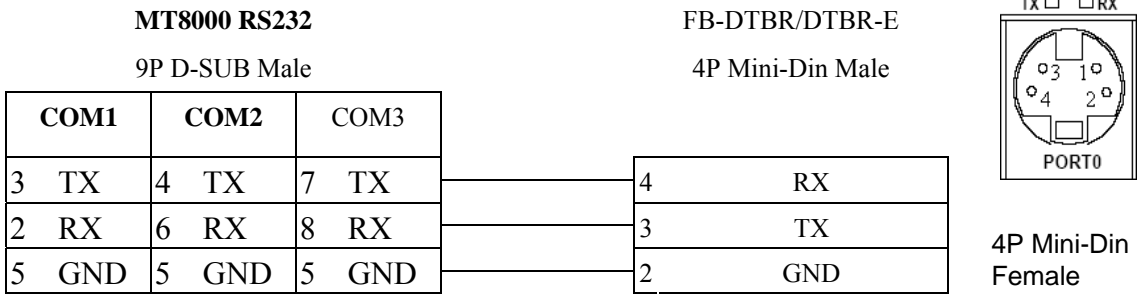
### 4. RS485: FB-DTBR/DTBR-E



5. RS485: FB-DTBR/DTBR-E



6. RS232: FBs Port0





# Fuji NB Series PLC

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

## HMI Setting:

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

## PLC Setting:

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

## Device address:

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

## Wiring diagram:

MT8000 HMI

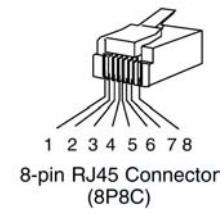
COM1 [RS485]4w

9P D-SUB

FUJI NB Series

RJ45 8p connector

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



# 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

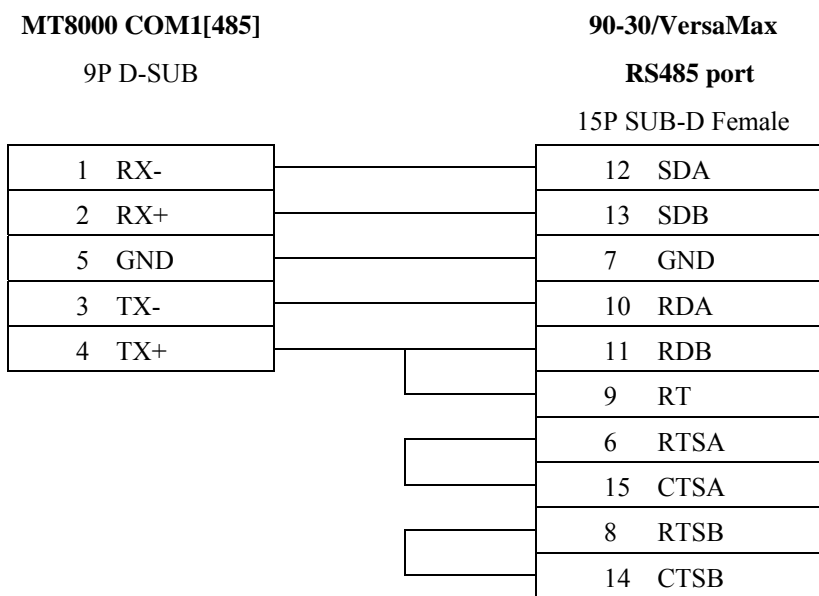
## Device address:

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	

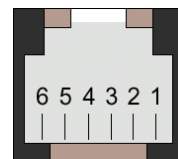
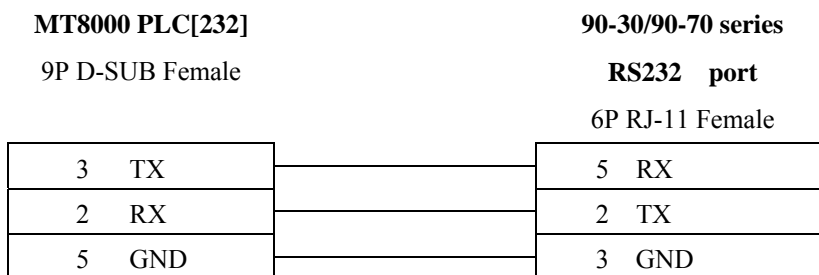
## Wiring diagram:

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.

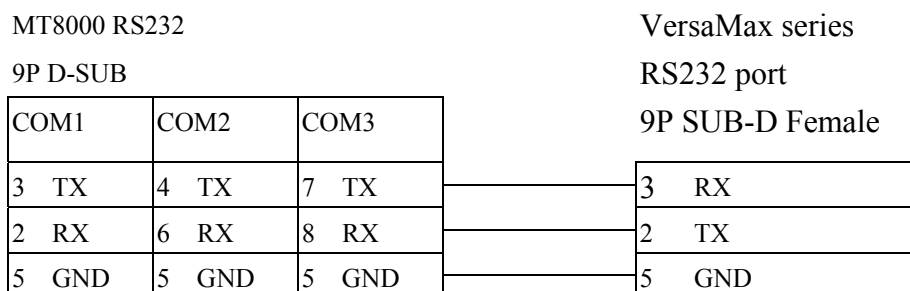
### CPU port(90-30/VersaMax)



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



6P RJ-11 Female



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

# GE Fanuc Series 90-30 (Ethernet)

GE 90-30 series, CPU model 374plus

## HMI Setting:

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

## Device address:

Bit/Word	Device type	Format	Range	Memo
B	I_bit	dddd	1 ~ 2048	
B	Q_bit	dddd	1 ~ 2048	
B	M_bit	dddd	1 ~ 4096	
B	G_bit	dddd	1 ~ 1280	
B	T_bit	ddd	1 ~ 256	
B	SA_bit	dd	1 ~ 32	Read Only
B	SB_bit	dd	1 ~ 32	Read Only
B	SC_bit	dd	1 ~ 32	Read Only
B	S_bit	dd	1 ~ 32	Read Only
W	I	dddd	1 ~ 2033	Address increases 8 words, ex: I1, I9, I17, I25.....
W	Q	dddd	1 ~ 2033	the rule is same as above, ex:Q1, Q9, Q17...
W	M	dddd	1 ~ 4081	the rule is same as above, ex:M1, M9, M17..
W	G	dddd	1 ~ 1256	the rule is same as above, ex:G1, G9, G17...
W	T	ddd	1 ~ 241	the rule is same as above, ex:T1, T9, T17....
W	SA	dd	1 ~ 17	Read Only, the rule is same as above
W	SB	dd	1 ~ 17	Read Only, the rule is same as above

W	SC	dd	1 ~ 17	Read Only, the rule is same as above
W	S	dd	1 ~ 17	Read Only, the rule is same as above
W	R	dddd	1 ~ 9999	
W	AI	dddd	1 ~ 2048	
W	AQ	ddd	1 ~ 512	

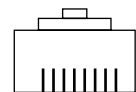
## Wiring diagram:

### Ethernet:

MT8000 Ethernet Wire color  
RJ45

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  
connector

### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color

Modbus TCP Device

RJ45

RJ45

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



# HAN YOUNG

Temperature Controller

<http://hynux.com/kor/>

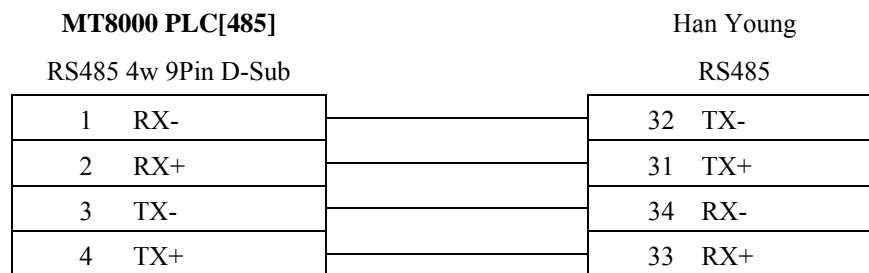
## HMI Setting:

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 series, 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:

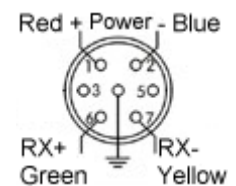
EU05 series

MT8000 PLC[485]

RS485 port

9P D-SUB

COM1	COM3	
1 RX-	6 Data-	7 RX- (Yellow)
2 RX+	9 Data+	5 RX+ (Green)
5 GND	5 GND	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:

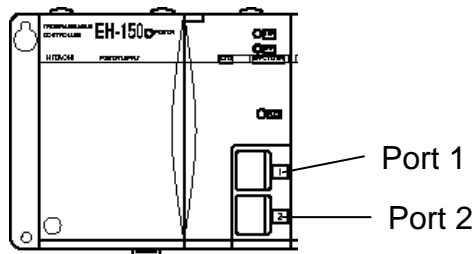
Communication mode	<b>19200,E,7,1(default)</b>
Select	

## 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)

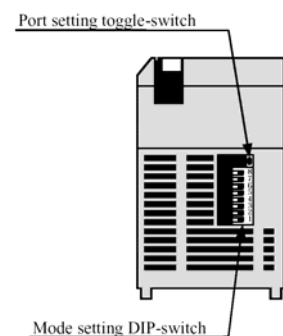
## Wiring diagram:

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.



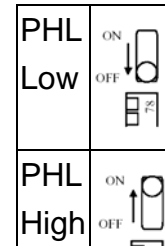
CPU TYPE	Port 1	Port 2
EH-150/CPU 104A	RS-232	RS-232
EH-150/CPU 208A	RS-232	RS-232
EH-150/CPU 308A	RS-232/RS-485	RS-232
EH-150/CPU 316A	RS-232/RS-485	RS-232
EH-150/CPU 448A	RS-232/RS-485	RS-232

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	



	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



### EH-150 port1 RS232

MT8000 RS-232

9P D-SUB

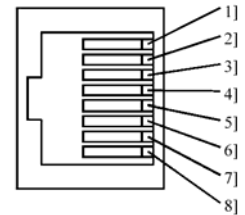
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

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

Hitachi EH-150

port1

8PinRJ45port

5 TX-
4 TX+
6 RX-
7 RX+
1 SG

### EH150port1 RS485 2wire :

EasyView MT8000 HMI

PLC RS485 port

9PinD-SUB FEMALE

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

Hitachi EH-150 port1

8PinRJ45 port

5 TX-
4 TX+
6 RX-
7 RX+
1 SG

EH-150 port2 RS232

MT8000 PLC[232]

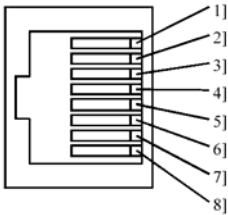
9P D-SUB Male

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]

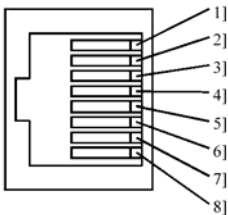
9P D-SUB Male

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

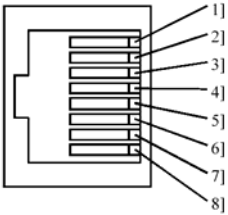
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

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	<b>9600,E,7,1(default), Use Computer Link Protocol</b>
--------------------	--

## 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:

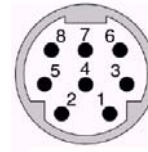
RS232: Micro3C, MicroSmart, OpenNet Controller CPU Ladder Port

MT8000 RS232

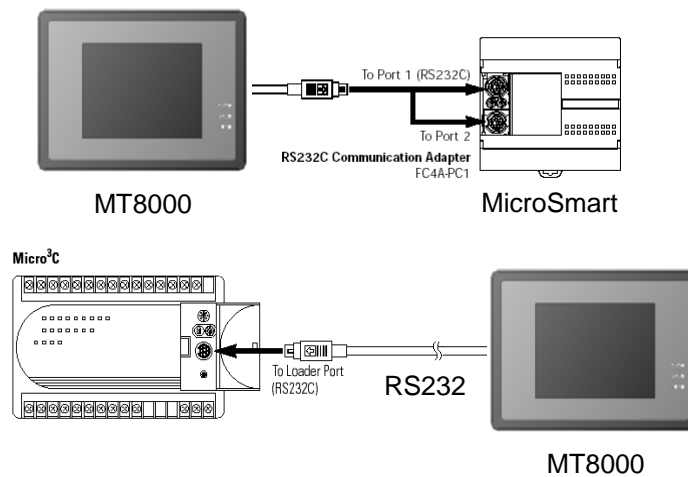
CPU port 1 or port2 RS-232

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



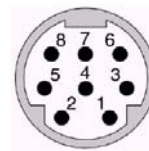
RS485: Micro3 CPU Port, MicroSmart with FC4A-PC2 RS485 Communication Adapter

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

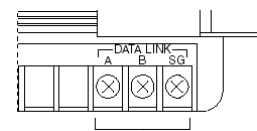
RS485: Micro3C, OpenNet Controller Data Link Terminals,  
MicroSmart with FC4A-PC3 RS485 Communication Adapter

MT8000 RS-485

Data Link Terminals

9P D-SUB Female

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



# KEYENCE 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

KEYENCE PLC

COM1	COM2	COM3		OP-26486
3 TX	4 TX	7 TX		2 RXD
2 RX	6 RX	8 RX		3 TXD
5 GND	5 GND	5 GND		5 GND

# 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

KEYENCE PLC

OP-26486

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

# Korenix 6550 / 6520

<http://www.korenix.com/>

## HMI Setting:

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

## Device address:

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

## Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color  
RJ45

Ethernet Hub or  
Switch RJ45

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



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color  
RJ45

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-

# 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:

	<ol style="list-style-type: none"><li>1. The PLC must not have a password.</li><li>2. PLC must be set for Full Duplex operation.</li><li>3. PLC must be set for No Hardware Handshaking.</li><li>4. The PLC must be set to use the 'K' Sequence Protocol.</li><li>5. Set the mode switch to the TERM mode</li><li>6. When using the D4-440 CPU, you must set the station number to 1.</li></ol>
--	---

## Device address:

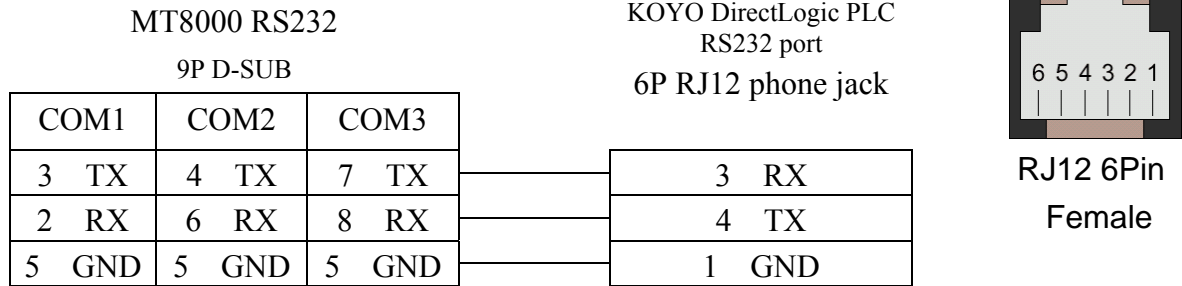
Bit/Word	Device Type	Format	Range	Memo
B	X	oooo	0 ~ 4000	Input Bits
B	Y	oooo	0 ~ 4000	Output Bits
B	C	ooooo	0 ~ 10000	Control Relays
B	T	oooo	0 ~ 1000	Timer Status Bits
B	CT	oooo	0 ~ 1000	Counter Status Bits
B	S	oooo	0 ~ 2000	
B	SP	oooo	0 ~ 2000	
B	GX	ooooo	0 ~ 10000	
B	GY	ooooo	0 ~ 10000	
W	Timer	oooo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



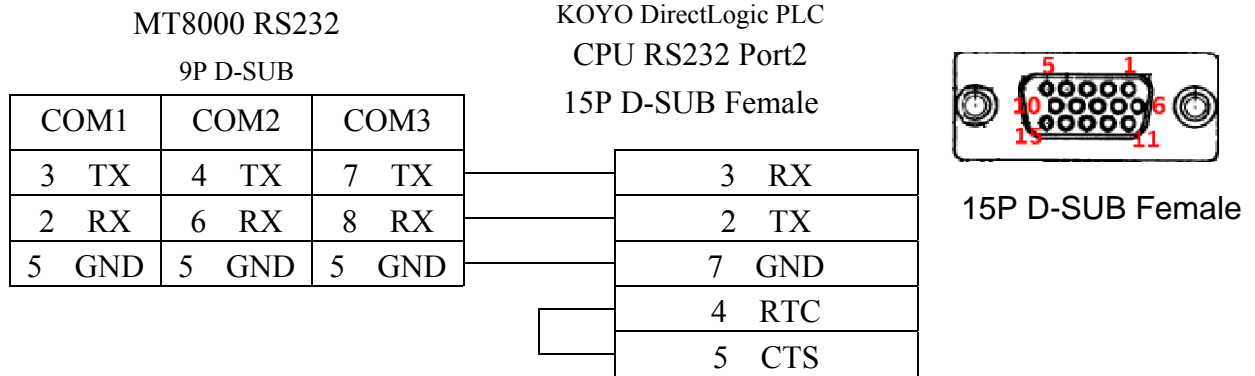
W	Counter	oooo	0 ~ 1000	
W	V	oooo	0 ~ 77777	V Memory

## Wiring diagram:

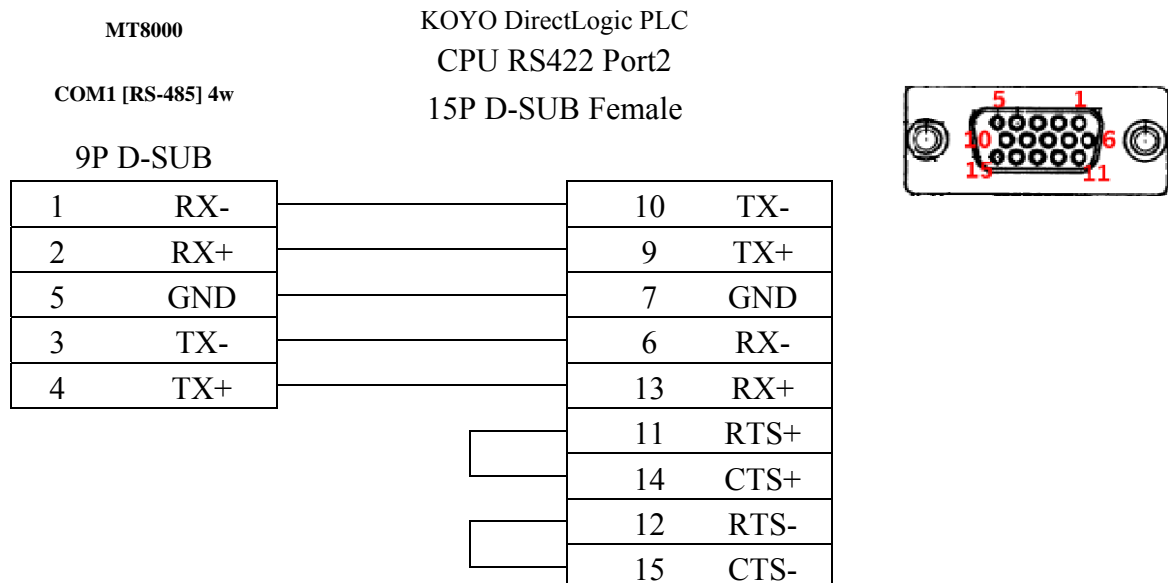
### 1. CPU unit: DL05/DL06/DL105/DL230/DL240/DL250/DL350/DL450 RS232 port



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



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



Note: DL06/DL250 CPU Port2 include RS232 and RS422

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

MT8000 RS232

9P D-SUB

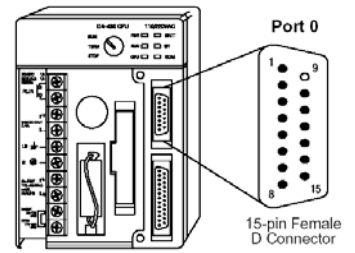
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

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

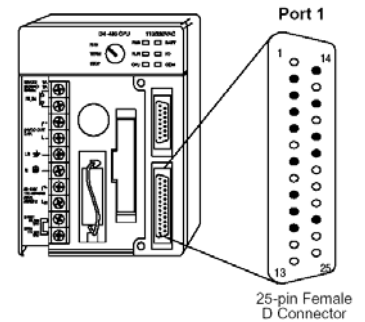
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

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

MT8000

KOYO DirectLogic PLC

DL405 CPU RS422 Port3

COM1[RS-485]4w

25P D-SUB Female

9P D-SUB

1	RX-		13	TX-
2	RX+		12	TX+
5	GND		7	GND
3	TX-		25	RX-
4	TX+		24	RX+

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

MT8000 RS232

KOYO DirectLogic PLC

DL205/405 DCM RS232 Port

9P D-SUB

25P D-SUB Female

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

# KOYO DirectLogic Ethernet Module

KOYO DirectLogic series, model H0-ECOM100

<http://www.automationdirect.com>

## HMI Setting:

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

## Device address:

Bit/Word	Device Type	Format	Range	Memo
B	GX	oooo	0~3777	Global I/O
B	X	oooo	0~1777	Real Word Inputs
B	SP	oooo	0~1777	Special Purpose Relays
B	GY	oooo	0-3777	More Global I/O
B	Y	oooo	0-1777	Real Word Outputs
B	C	oooo	0-3777	Control Relays
B	S	ooo	0-1777	Stage Status Bits
B	T	ooo	0-377	Timer Status Bits
B	CT	ooo	0-377	Counter Status Bits
W	V	ooooo	0-41237	V-memory
W	CMM_32	hhh	001-200	對映於 GX, X, SP
W	CCM_33	hhh	001-340	對映於 GY,Y,C,S,Y,CT,V
W	CCM_31	hhhh	1-42A0	對映於 V

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

ddd:Decimal, hhh:Hexadecimal, ooo:Octal

## Wiring diagram:

Ethernet port

MT8000 Ethernet Wire color

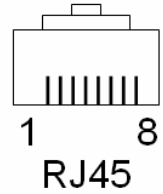
RJ45

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

Ethernet Hub or

Switch RJ45

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color

RJ45

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

Modbus TCP Device

RJ45

3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
8	BD3-

# LS MASTER-K Cnet

LS MASTER-K series: K80S, K200S, K300S, K1000S

<http://www.lgis.com/>

## HMI Setting:

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

Online Simulator	YES	
Extend address mode		

## PLC Setting:

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

## Device address:

Bit/Word	Device Type	Format	Range	Memo
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			CPU port Cnet I/F RS232 9P D-SUB Female	
COM1	COM2	COM3		
3 TX	4 TX	7 TX		4 RX
2 RX	6 RX	8 RX		7 TX
5 GND	5 GND	5 GND		5 GND

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

# 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	<b>38400, None, 8, 1</b>
--------------------	--------------------------

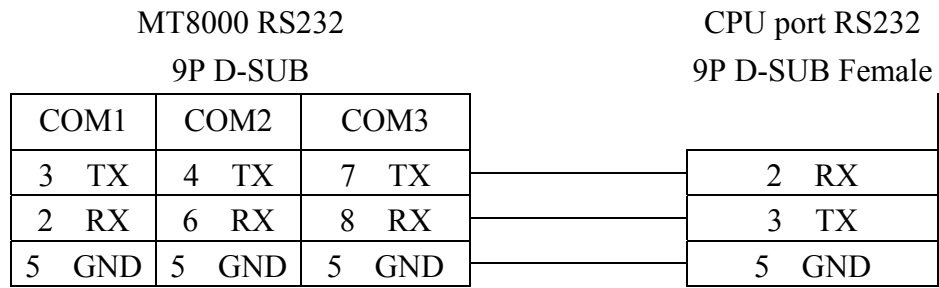
## Device address:

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:



# 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.

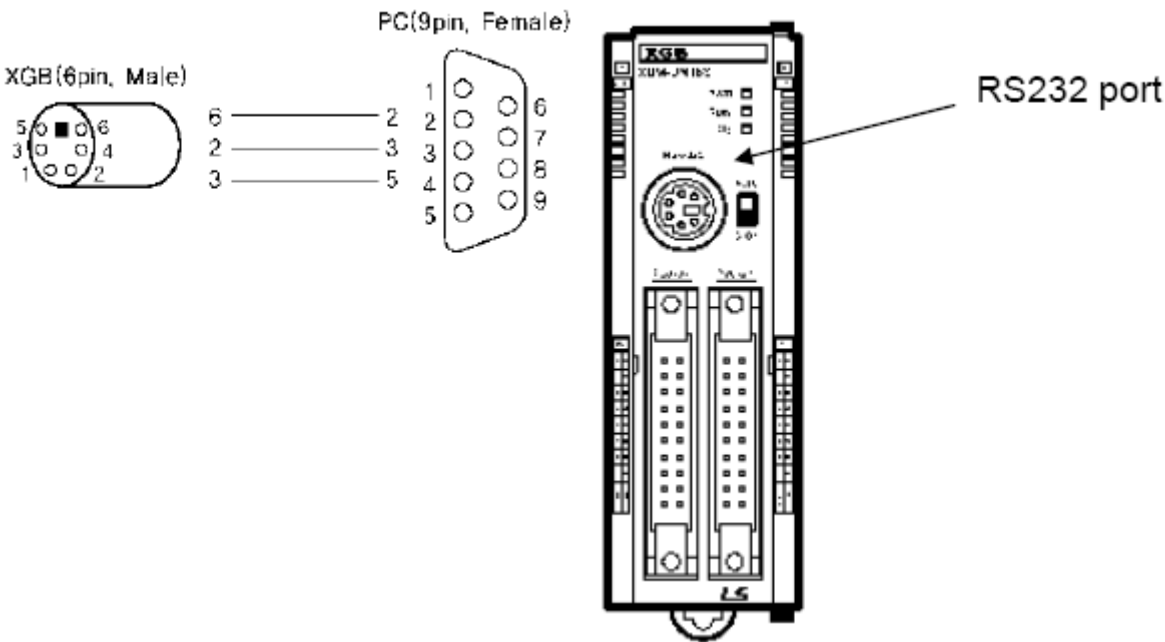
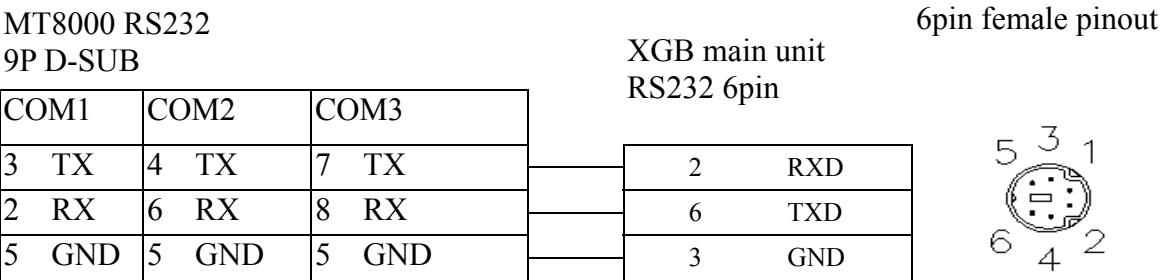
## Device address:

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:



# 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 Wire color

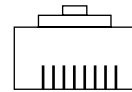
RJ45

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

Ethernet Hub or Switch

RJ45

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



1 8  
RJ45

### Ethernet: Direct connect (crossover cable)

MT8000

Wire color

Ethernet RJ45

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

TCP Device

RJ45

3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
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	<b>9600,7,1,Even</b>
--------------------	----------------------

## 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



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.	0	Use PLCAddressView.exe find PLC ID.	
Parameter 1	MT500 PLC ID		



## PLC Setting:

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



**System Parameter Setting**

PLC: General Indicator Security Editor Hardware Misc

PLC type: MITSUBISHI FX0n/FX2

HMI model: MT510T/MT508T (640 x 480)

PLC I/F port: RS-485 4W Band rate: 9600

Data bits: 7 Bits Parity: Even

Stop bits: 1 Bit

Parameter 1: 0 Turn around delay: 0

Parameter 3: 0 Parameter 4: 0

Parameter 5: 0 Parameter 6: 0

HMI station no.: 0 PLC station no.: 0

Multiple HMI: Slave HMI-HMI link speed: 115200

Connect I/F: Serial

Local IP address: 0 - 0 - 0 - 0

Server IP address: 0 - 0 - 0 - 0

Subnetwork mask: 0 - 0 - 0 - 0

Default route IP address: 0 - 0 - 0 - 0

PLC time out constant (sec): 3.0 PLC block pack: 0

OK Cancel

**PLCAddressView**

MITSUBISHI FX0n/FX2

PLC/Address Type ID	Bit/Word	Address Type	Addressing Format	Max	Min
MITSUBISHI FX0n/FX2	PLC ID=10				
0	Bit(HMI)	LB	ddd	9999	0
1	Bit(PLC)	X	ooo	377	0
2	Bit(PLC)	Y	ooo	377	0
3	Bit(PLC)	M	ddd	9999	0
4	Bit(PLC)	T	ddd	255	0
5	Bit(PLC)	C	ddd	255	0
8	Word(HMI)	LW	ddd	9999	0
9	Word(PLC)	TV	ddd	255	0
10	Word(PLC)	CV	ddd	199	0
11	Word(PLC)	D	ddd	9999	0
12	DWord(PLC)	CV2	ddd	255	200
13	Word(PLC)	SD	ddd	9999	0000
121	Word(HMI)	RW	ddd	32767	0
120	Bit(HMI)	RIB	ddd:h	2047	0
140	Bit(HMI)	RB	ddd:h	2047	0
141	Word(HMI)	RW	ddd	65535	0
160	Bit(HMI)	Ms_RB	ddd:h	4095	0
161	Bit(HMI)	Ms_LB	ddd	9999	0
100	Word(HMI)	Ms_RW	ddd	65535	0

Exit

## 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	dddd	dddd:0~65534	Holding Register
DW	ML	dddd	dddd:0~65533	Double word
F	MF	dddd	dddd:0~65533	Floating point

## Wiring diagram:

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

MT8000 RS232

217IF-01 RS232  
9P D-SUB Female

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

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

MT8000 RS-485 2w

217IF-01 RS422/485

COM1	COM3		14P connector
1 RX-	6 Data-		2, 4 D-
2 RX+	9 Data+		1, 3 D+
5 GND	5 GND		14 GND

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

MT8000 RS-485 2w

217IF-01 RS422/485

COM1		14P connector
1 RX-		2 TX-
2 RX+		1 TX+
3 TX-		4 RX-
4 TX+		3 RX+
5 GND		14 GND

# 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	
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	<b>Format 1</b>
Parity Check	<b>Enable</b>
Sum Check	<b>Enable</b>

## 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:

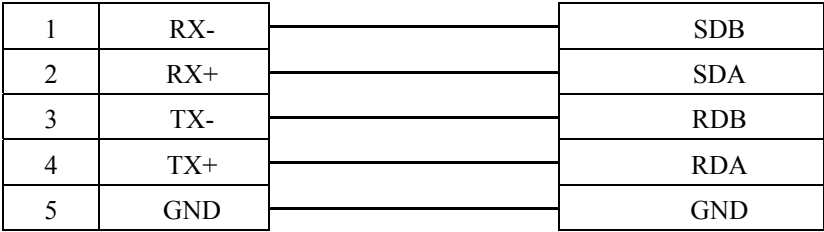
RS-485 4W:

MT800 Com1 RS-485]

AJ71C24

9P D-SUB

RS-422



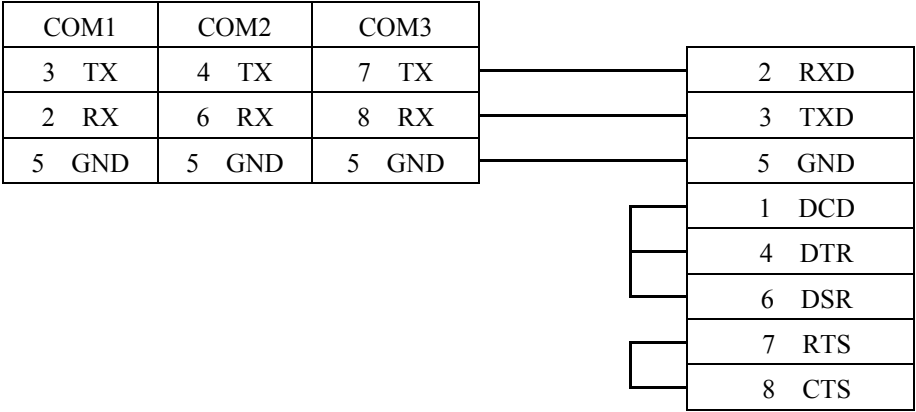
RS-232: A1SJ71UC24-R2

MT8000 RS232

RS232 port

9P D-SUB Female

9P D-SUB



# MITSUBISHI FX0n/FX2

Mitsubishi FX0s/FX0n/FX1s/FX2 PLC

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

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX0n/FX2	Mitsubishi FX0n/FX2	
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/ 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

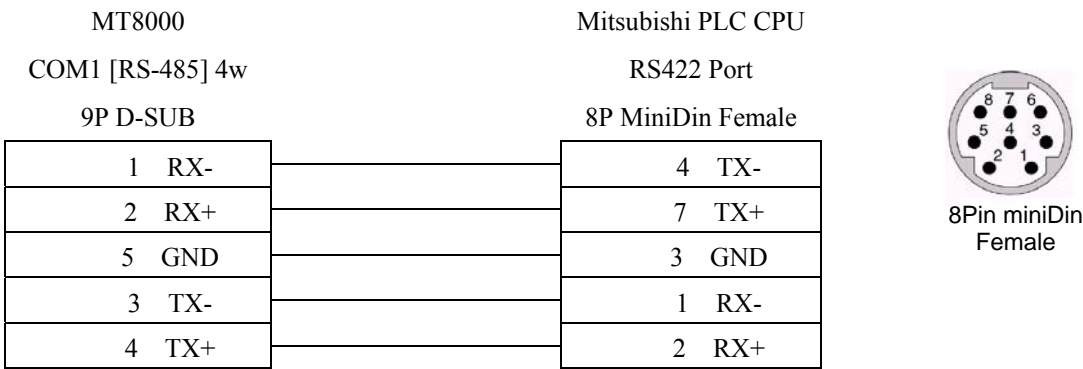
## PLC Setting:

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:



# MITSUBISHI FX2n

Mitsubishi FX1n/FX2n series PLC

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

## HMI Setting:

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

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

## PLC Setting:

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

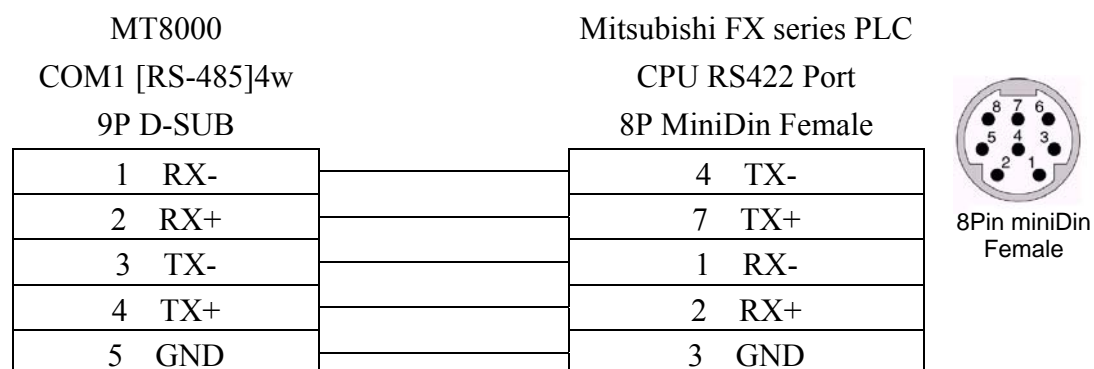
## Device address:

Bit/Word	Device Type	Format	Range	Memo
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



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

## Wiring diagram:



# MITSUBISHI FX232/485BD

Mitsubishi FX0n/FX2/FX2n COM For Communication Module BD

FX2N-485-BD, FX2N-232-BD, FX1N-485-BD and FX1N-232-BD

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

## HMI Setting:

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

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

Online Simulator	YES	Extend address mode	YES
Broadcast command			

## PLC Setting:

Communication mode	Must set PLC station when use the BD Module
--------------------	---

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

FX2N-485-BD, FX1N-485-BD

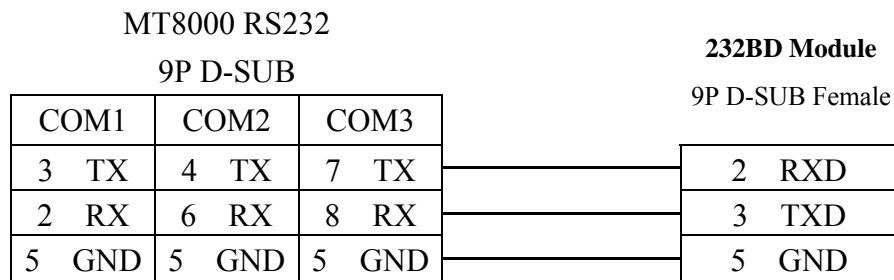
FX2N-232-BD, FX1N-232-BD

## Device address:

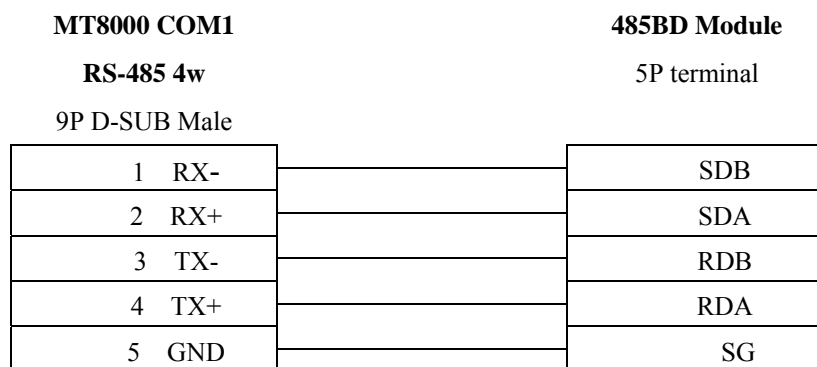
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	ddd	0-9999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register
W	CV2	ddd	200-255	Counter Memory(D Word)

## Wiring diagram:

Communication Module RS232BD:



Communication Module RS485BD:



Communication Module RS485BD:

MT8000 RS-485 2Wire

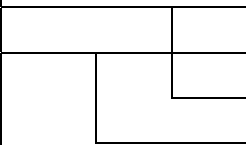
9P D-SUB

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 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:

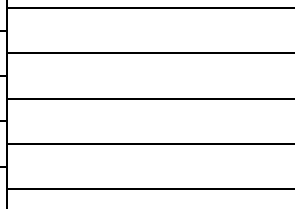
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~377	Input Relay
B	Y	ooo	0~377	Output Relay
B	M	dddd	0~7679	Auxiliary Relay
B	SM	dddd	8000~9999	Special Relay (M)
B	S	dddd	0~4095	State Relay (S)
B	T	ddd	0~511	Timer Relay (T)
B	C	ddd	0~199	Counter Relay (C)
B	D_Bit	dddd(dd)	dddd=0~7999 (dd)=0~15	Data Register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

Bit/Word	Device Type	Format	Range	Memo
W	TV	ddd	0~511	Timer Memory (T)
W	CV	ddd	0~199	Counter Memory (C)
DW	CV2	ddd	200~255	Counter Memory(D Word)
W	D	dddd	0~7999	Data Register (D)
W	SD	dddd	8000~9999	Special Data Register (D)
W	R	dddddd	0~32767	Extended Register (R)

## Wiring diagram:

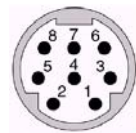
MT8000  
COM1[RS-485]4w  
9P D-SUB

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



Mitsubishi FX series PLC  
CPU RS422 Port  
8P MiniDin Female

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



8Pin miniDin  
Female

# 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	dddddd	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

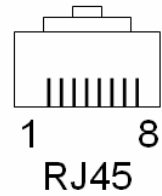
ddd: (Decimal), hhh:(Hexadecimal), ooo:(Octal).

## Wiring diagram:

Ethernet:

MT8000                      Wire color                      Ethernet Hub or  
Ethernet RJ45                      Switch RJ45

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



Ethernet: Direct connect (crossover cable)

MT8000                      Wire color                      Modbus TCP Device  
Ethernet RJ45                      RJ45

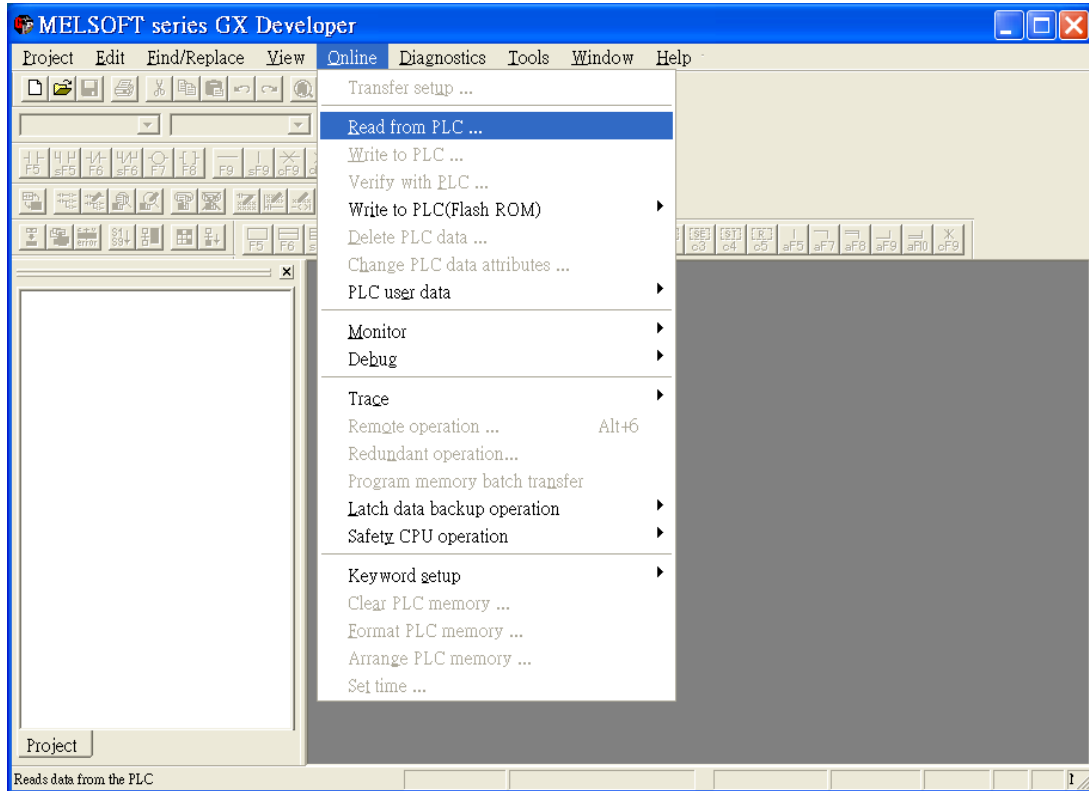
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-



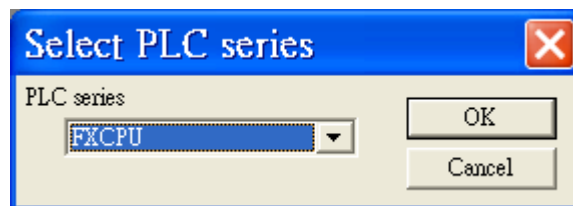
Fx3u-ENET module setting:

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

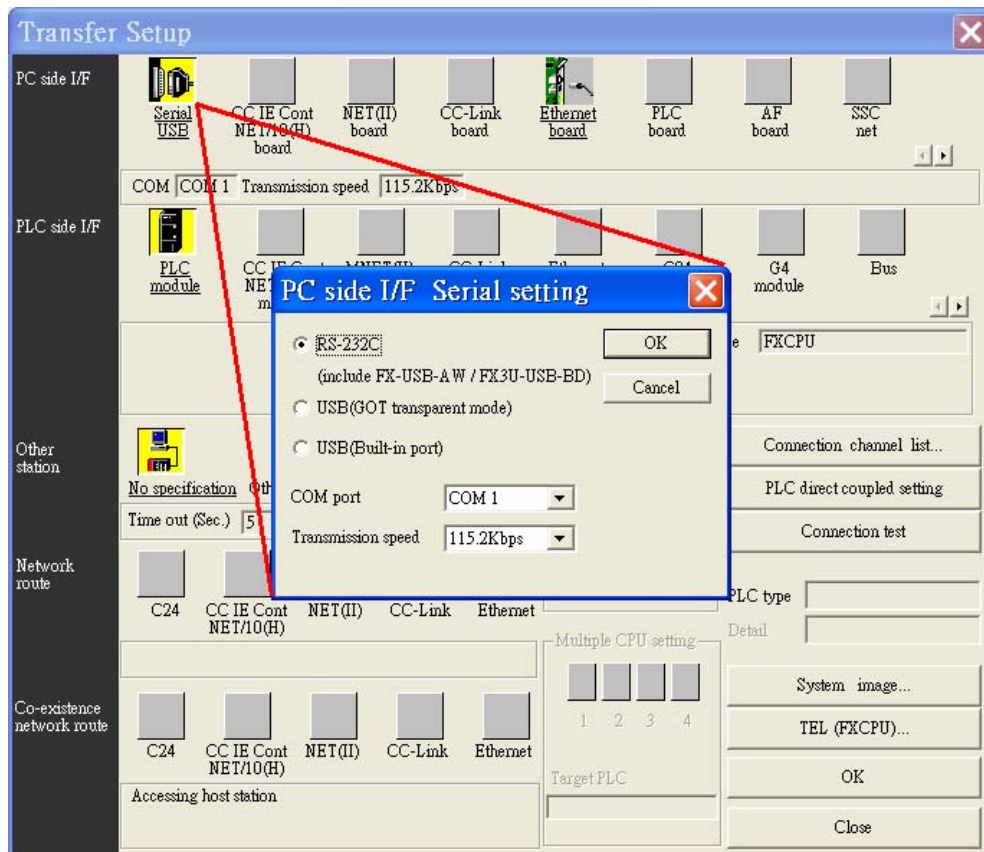
1. Open GX Developer, select “Read from PLC” in Online list.



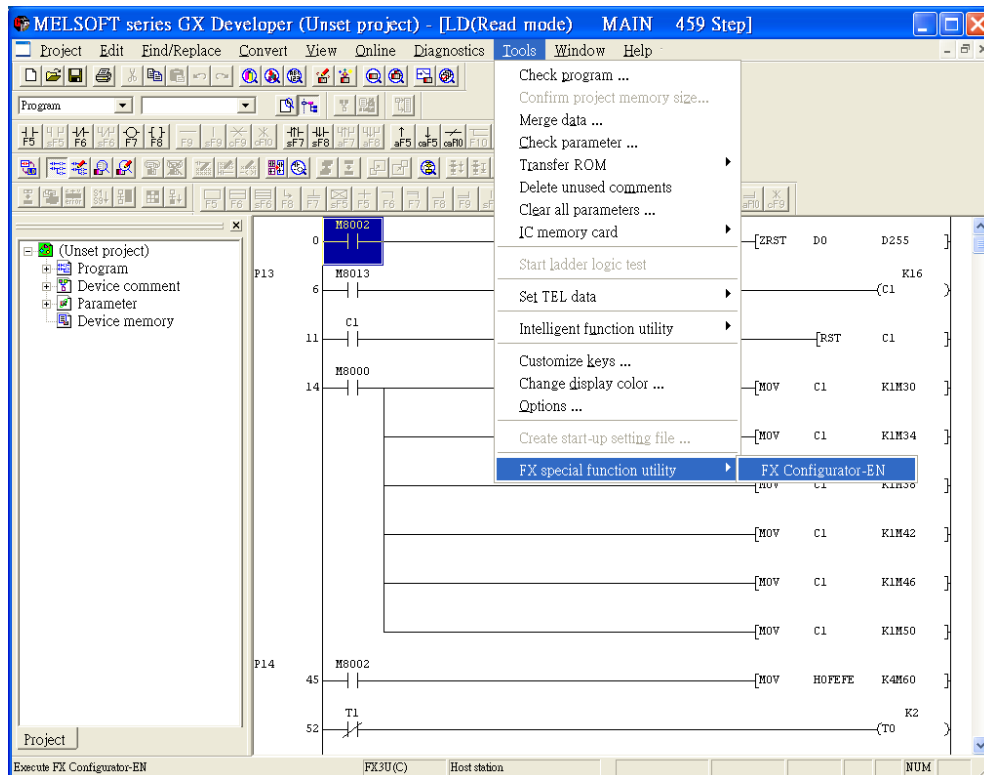
2. Select “FXCPU” in PLC series.



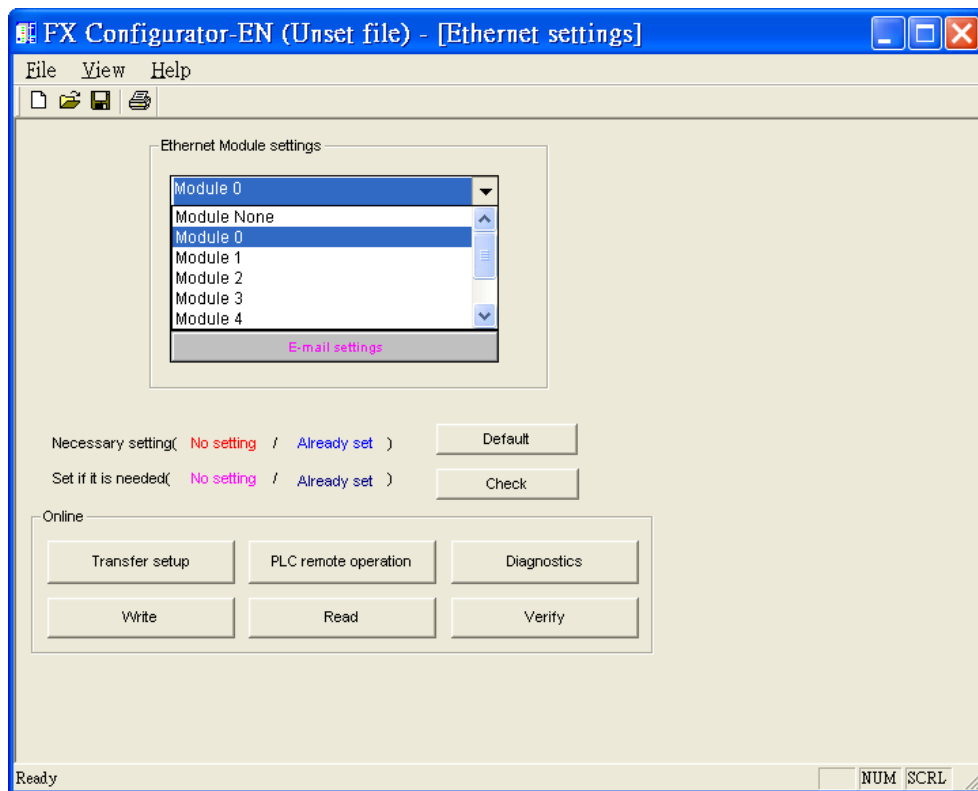
3. Users have to connect PLC via series port for setting IP address at first time.



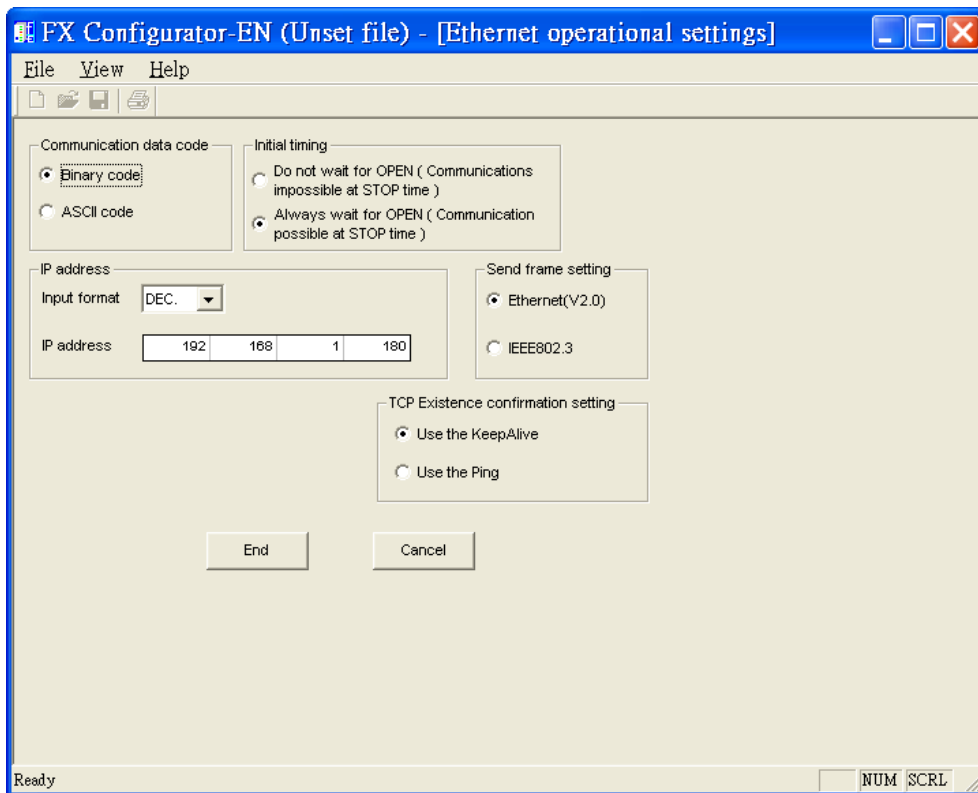
4. After finishing the PLC settings, select Tools/FX special function utility/FX Configurator-EN



5. Select “Module 0” in Ethernet Module settings.  
( If more than one module, please setting modules step by step)



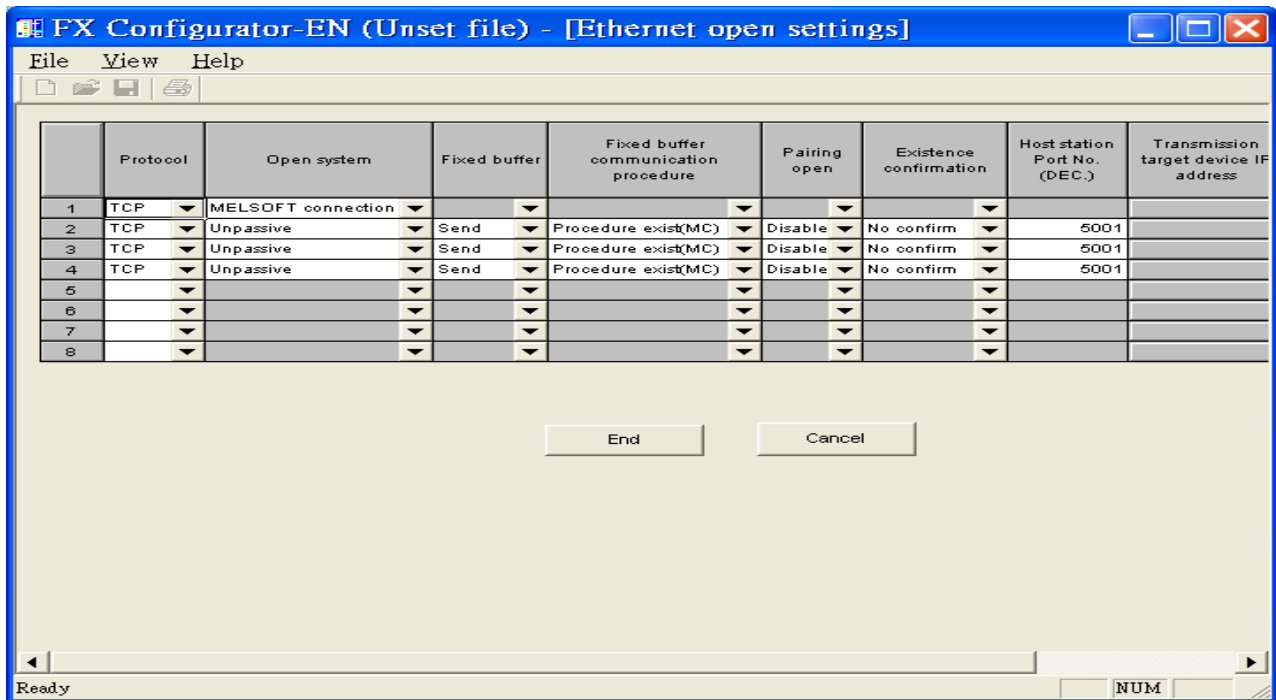
6. In Ethernet operational settings, select the related parameters and IP address and then press "End" to finish the settings.



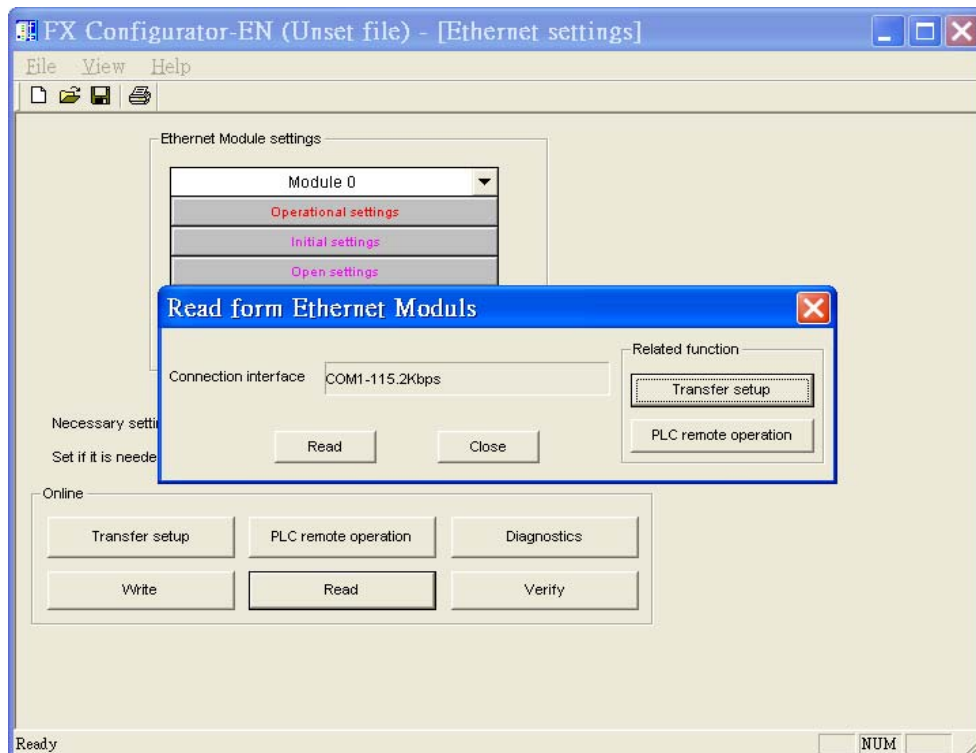
7. In Ethernet open settings, press "End" after setting the below parameters.

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 precedure” is 4 units.)



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



# MITSUBISHI MELSEC-Q

MITSUBISHI Q series, MELSEC-Q protocol apply to CPU of Ethernet interface or Ethernet module.

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

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI MELSEC-Q		
Com port	Ethernet		
PLC Station No.	It must same as the PLC setting	0~255	Q13UDEH have to set 255
Parameter 1	Networking No (It must same as the PLC setting)	0~255	Q13UDEH have to set 0
TCP/IP port	It must same as the PLC setting		Q13UDEH have to set 4999

## Device address:

Bit/Word	Device Type	Format	Range	Memo
B	SM	dddd	0 ~ 2047	Special Relay
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	TS	dddd	0 ~ 2047	Timer Contact
B	TC	dddd	0 ~ 2047	Timer Coil
B	SS	dddd	0 ~ 2047	Retentive Timer Contact
B	SC	dddd	0 ~ 2047	Retentive Timer Coil
B	CS	dddd	0 ~ 1023	Counter Contact
B	CC	dddd	0 ~ 1023	Counter Coil
B	SB	hhh	0 ~ 7FF	Special Link Relay
B	S	dddd	0 ~ 8191	Step relay
B	DX	hhhh	0 ~ 1FFF	Direct Input
B	DY	hhhh	0 ~ 1FFF	Direct Output
W	SD	dddd	0 ~ 2047	Special register

W	D	dddddd	0 ~ 12287	Data Register
W	W	hhhh	0 ~ 1FFF	Link Register
W	TN	dddd	0 ~ 2047	Timer Current value
W	SN	dddd	0 ~ 2047	Retentive Timer Current value
W	CN	dddd	0 ~ 1023	Counter Current value
W	SW	hhh	0 ~ 7FF	Special Link Register
W	Z	dd	0 ~ 15	Index Register
W	R	dddddd	0 ~ 32767	File Register
W	ZR	hhhhh	0 ~ FE7FF	File Register

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

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

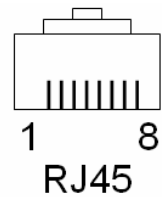
## Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color  
RJ45

Ethernet Hub or  
Switch RJ45

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



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color  
RJ45

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-

# 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:

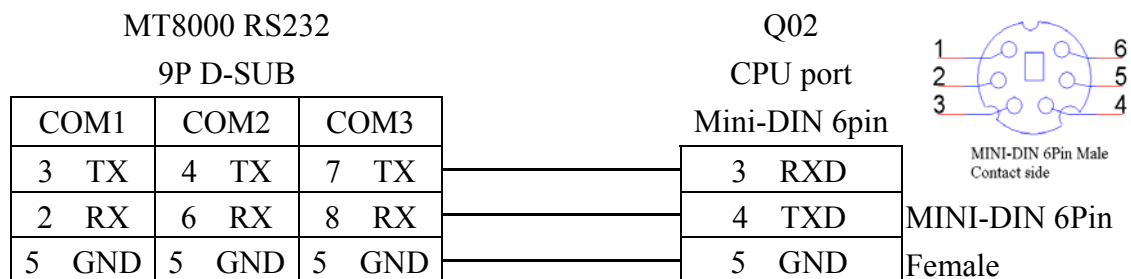
Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact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

Bit/Word	Device Type	Format	Range	Memo
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	dddd	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	dddd	0~12287	Data Register

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

## Wiring diagram:

RS-232:





# 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:

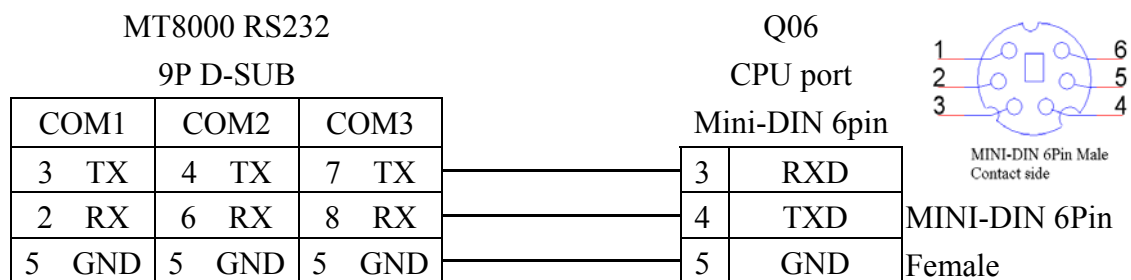
Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact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

Bit/Word	Device Type	Format	Range	Memo
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	dddd	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	dddd	0~12287	Data Register

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

## Wiring diagram:

RS-232:



# mitsubishi QJ71

Mitsubishi Q series PLC with QJ71C24 communication module, Q00, Q01 CPU port.

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

## HMI Setting:

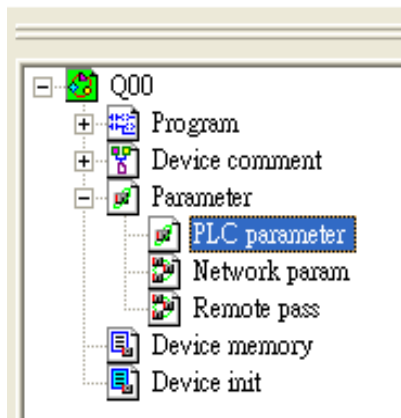
Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Melsec_QJ71		
Com port	RS232	RS485 4W, RS232	
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

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.

**Qn(H) Parameter**

PLC name | PLC system | PLC file | PLC RAS | Device | Program  
 Boot file | SFC | I/O assignment | Serial

☒ Use serial communication

Transmission speed  
 19.2Kbps

☒ Sum check

Transmission wait time  
 10ms

RUN write setting  
☒ Permit

Data format value is fixed as below.  
 Start bit:1 Parity bit:Odd  
 Data bit:8 Stop bit:1

Acknowledge XY assignment | Multiple CPU settings | Default | Check | End | Cancel

## Device address:

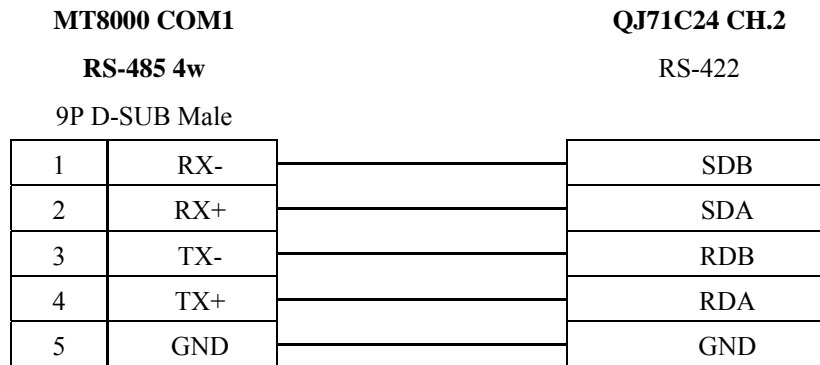
Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
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

Bit/Word	Device Type	Format	Range	Memo
W	R	dddd	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	dddd	0~12287	Data Register

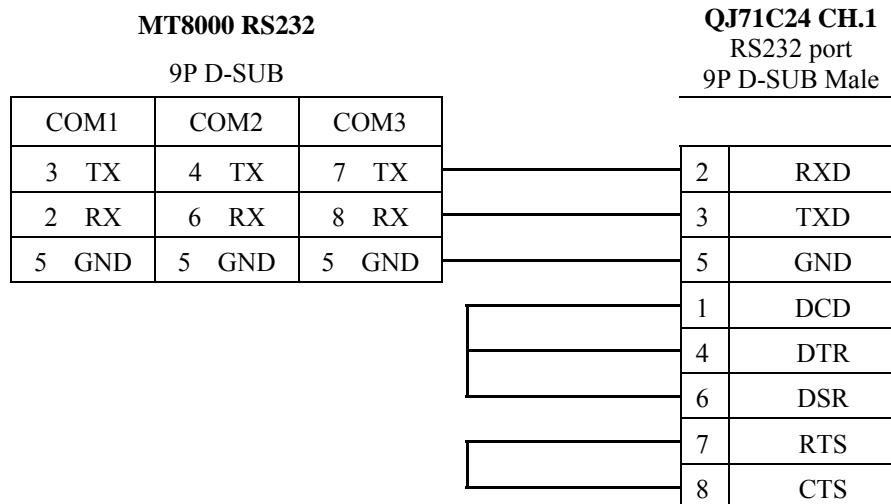
ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

## Wiring diagram:

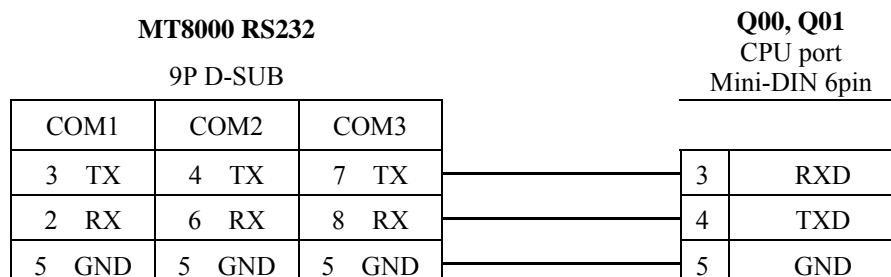
RS-485 4W:



RS-232:



Q00, Q01 CPU port RS-232:



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	dddddd	0~12287	Data Register

Ddd: Decimal, hhh: Hexadecimal

## Wiring diagram:

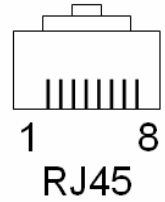
Ethernet:

MT8000 Ethernet Wire color  
RJ45

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

Ethernet Hub or  
Switch RJ45

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color  
RJ45

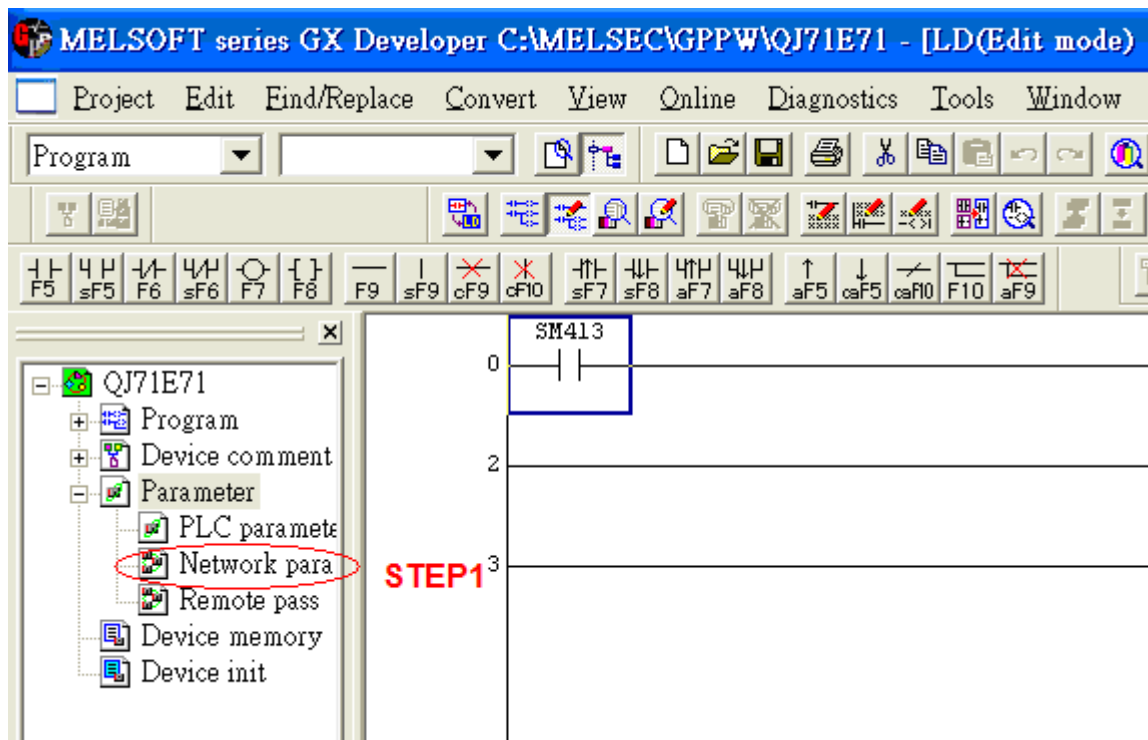
1	TX+	White/Orange
2	TX-	Orange
3	RX+	White/Green
4	BD4+	Blue
5	BD4-	White/Blue
6	RX-	Green
7	BD3+	White/Brown
8	BD3-	Brown

Modbus TCP Device  
RJ45

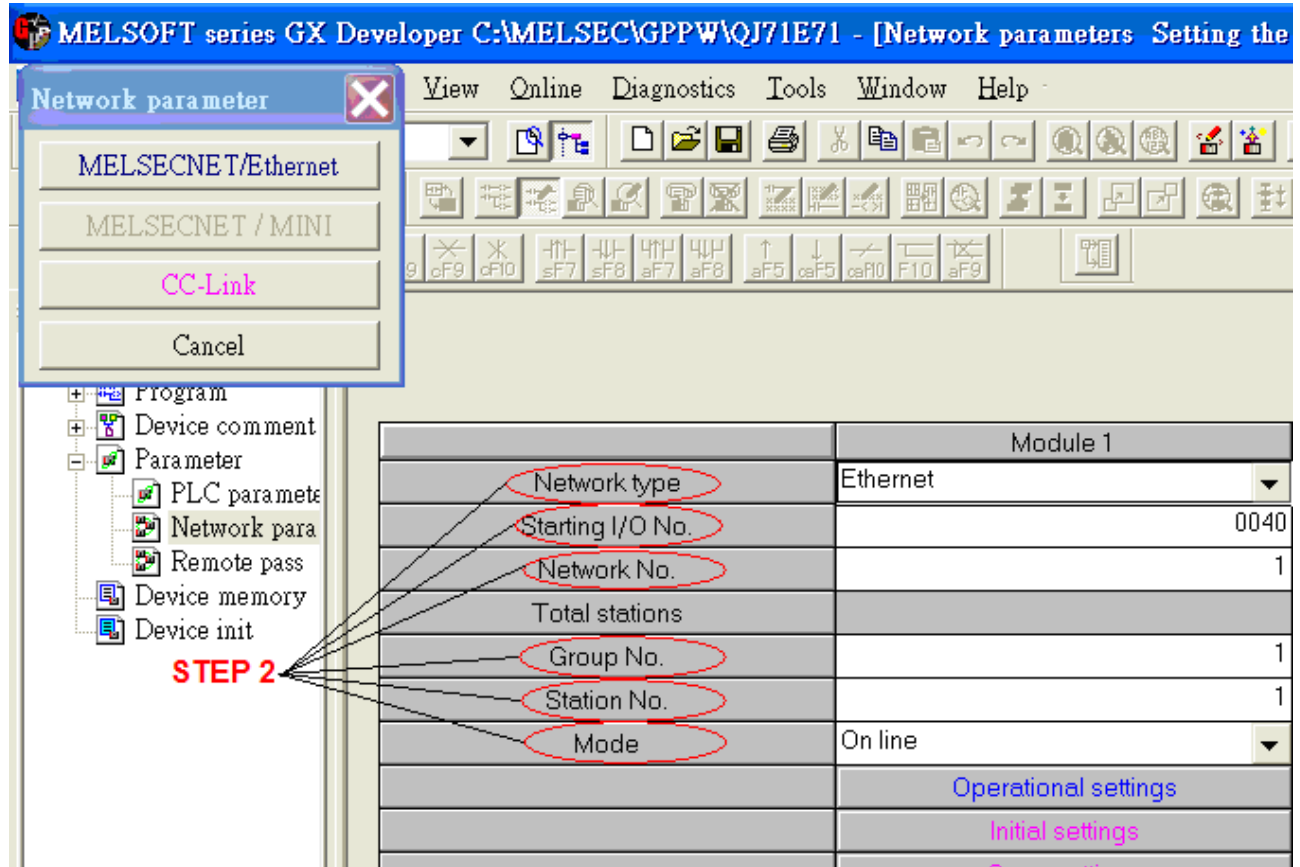
3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
8	BD3-

QJ71E71-100 Ethernet module settings:

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



2. Click Operational setting to set IP information.





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

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

**Ethernet operations**

Communication data code  
☒ Binary code  
☐ ASCII code

Initial timing  
☐ Do not wait for OPEN ( Communications impossible at STOP time )  
☒ Communication possible at STOP time

IP address  
 Input format: DEC.  
 IP address: 192.168.10.105

Send frame setting  
☒ Ethernet(V2.0)  
☐ IEEE802.3

☒ Enable Write at RUN time

TCP Existence confirmation setting  
☐ Use the KeepAlive  
☒ Use the Ping

End Cancel

4. Click “Open settings” to set the system.

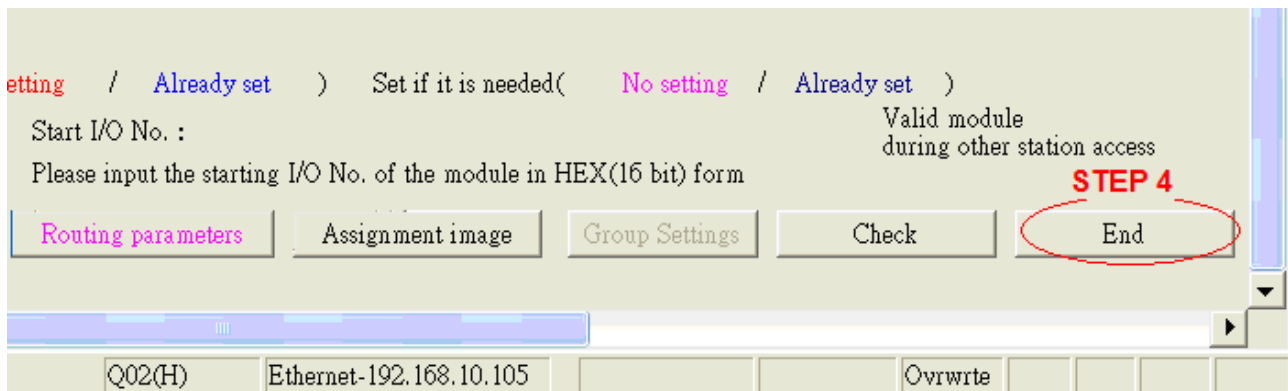
	Module 1	Module 2
Network type	Ethernet ▼	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line ▼	
	Operational settings	
	Initial settings	
	Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt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

■ Network parameter Ethernet open setting. Module No.1

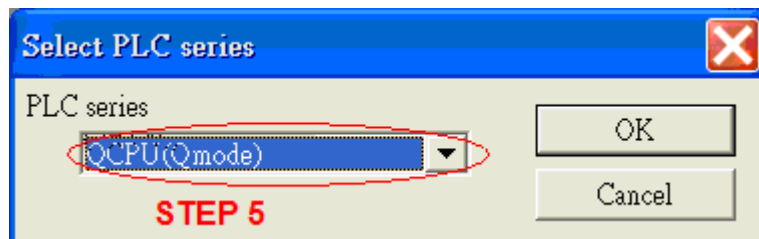
	Protocol	Open system	Fixed buffer	Fixed buffer communication procedure	Pairing open	Existence confirmation	Host station Port No.	Transmission target device IP address	Transmission target device Port No.
1	TCP ▼	MELSOFT connection ▼	▼	▼	▼	▼			
2	TCP ▼	MELSOFT connection ▼	▼	▼	▼	▼			
3	TCP ▼	MELSOFT connection ▼	▼	▼	▼	▼			
4	TCP ▼	MELSOFT connection ▼	▼	▼	▼	▼			
5	▼	▼	▼	▼	▼	▼			
6	▼	▼	▼	▼	▼	▼			
7	▼	▼	▼	▼	▼	▼			
8	▼	▼	▼	▼	▼	▼			
9	▼	▼	▼	▼	▼	▼			
10	▼	▼	▼	▼	▼	▼			
11	▼	▼	▼	▼	▼	▼			
12	▼	▼	▼	▼	▼	▼			
13	▼	▼	▼	▼	▼	▼			
14	▼	▼	▼	▼	▼	▼			
15	▼	▼	▼	▼	▼	▼			
16	▼	▼	▼	▼	▼	▼			

End Cancel

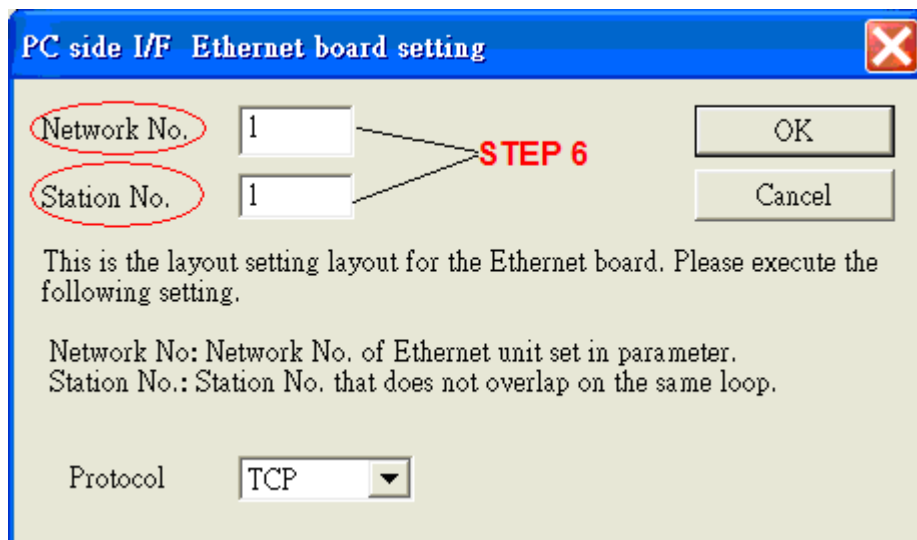
5. Press END to finish settings.



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



7. 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)



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

**PLC side I/F detailed setting of Ethernet module**

PLC: QJ71E71

Network No.: 1

Station No.: 1

**STEP 7**

☒ IP address: 192 168 10 105

☐ Host Name:

IP input format: DEC.

Routing parameter transfer method: Automatic response system

OK Cancel

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

**Other station Detailed setting**

Check at communication time: 30 sec.

Retry times: 0 times

**STEP 8**

It is not possible to cancel while communication retrying.

OK Cancel

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

# 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	dddd	1-65535	Output bit
B	1x	dddd	1-65535	Input bit (read only)
B	3x_Bit	dddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	dddd(dd)	100-6553515	Output Register bit
W	3x	dddd	1-65535	Input Register (read only)
W	4x	dddd	1-65535	Output Register

Modbus RTU function code:

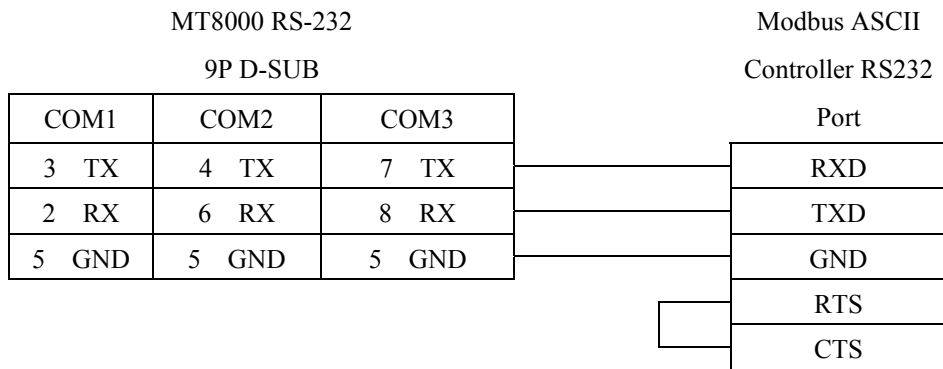
0x	0x01 Read coil	0x05 write single coil
1x	0x02 Read discrete input	N/A for write operation
3x	0x04 Read input register	N/A for write operation
4x	0x03 Read holding register	0x10 write multiple register

3xbit is equivalent to 3x

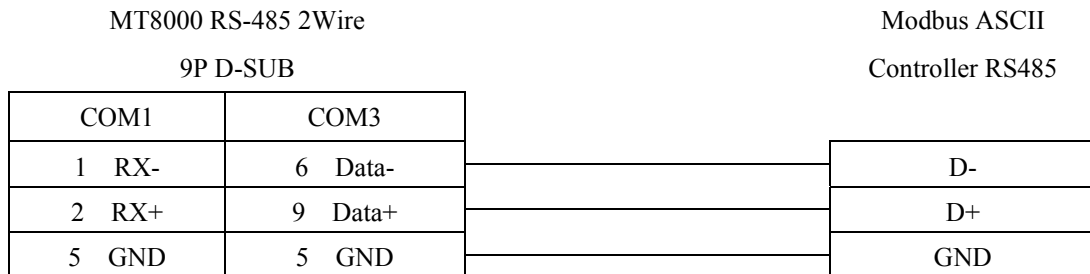
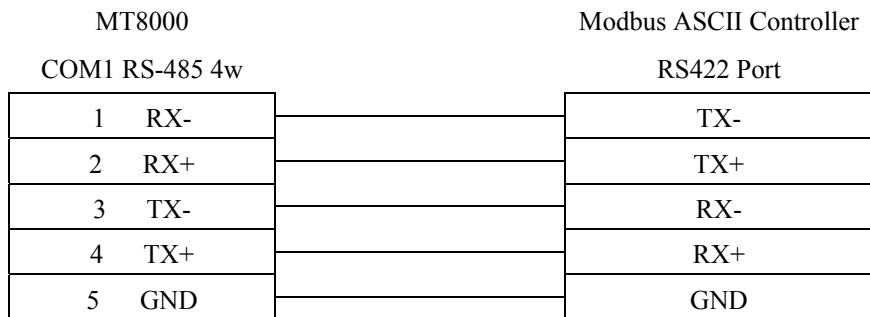
4xbit is equivalent to 4x

## Wiring diagram:

### MODBUS RS232 PORT



### MODBUS RS422/485 PORT



# 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	dddd	1-65535	Output bit
B	1x	dddd	1-65535	Input bit (read only)
B	3x_Bit	dddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	dddd(dd)	100-6553515	Output Register bit
B	6x_Bit	dddd(dd)	100-6553515	Output Register bit
W	3x	dddd	1-65535	Input Register (read only)
W	4x	dddd	1-65535	Output Register
DW	5x	dddd	1-65535	4x double word swap
W	6x	dddd	1-65535	4x single word write

NOTE:

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

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

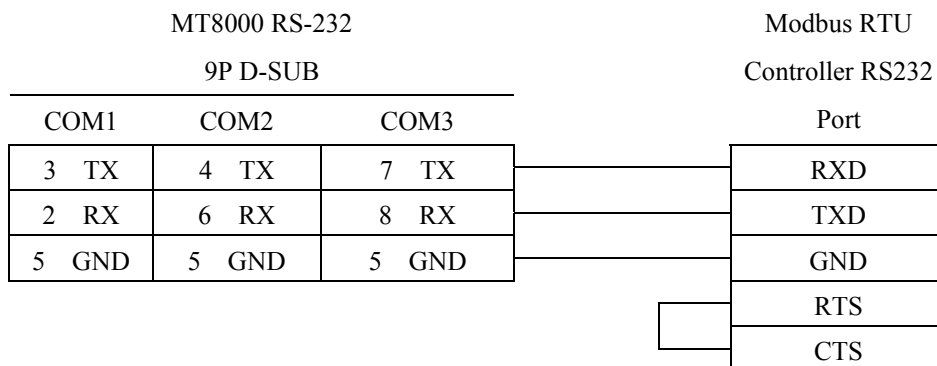
4xbit is equivalent to 4x

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

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

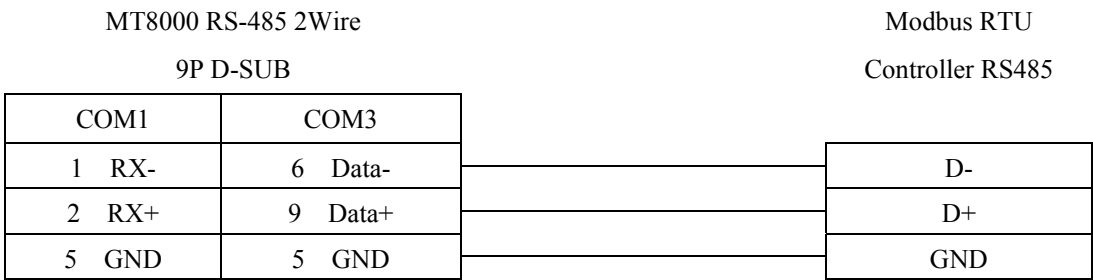
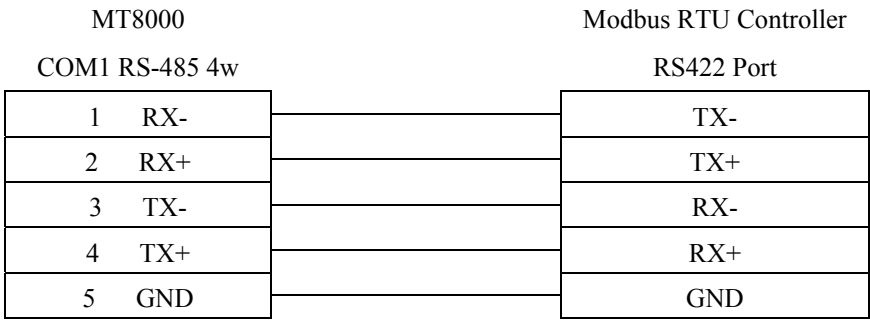
## Wiring diagram:

MODBUS RS232 PORT





MODBUS RS422/485 PORT



# MODBUS RTU (zero-based addressing)

## 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	dddddd	0-65535	Output bit
B	1x	dddddd	0-65535	Input bit (read only)
B	3x_Bit	dddddd(dd)	0-6553515	Input Register bit (read only)
B	4x_Bit	dddddd(dd)	0-6553515	Output Register bit
W	3x	dddddd	0-65535	Input Register (read only)
W	4x	dddddd	0-65535	Output Register
DW	5x	dddddd	0-65535	4x double word swap
W	6x	dddddd	0-65535	4x single word write

NOTE:

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

If 4x have 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

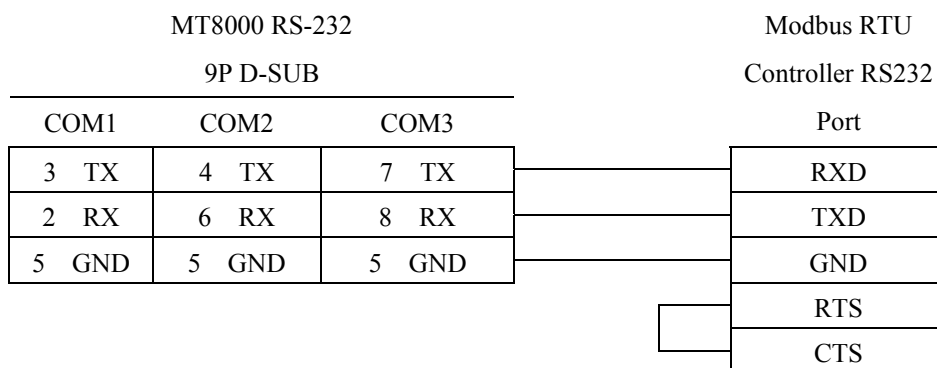
4xbit is equivalent to 4x

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

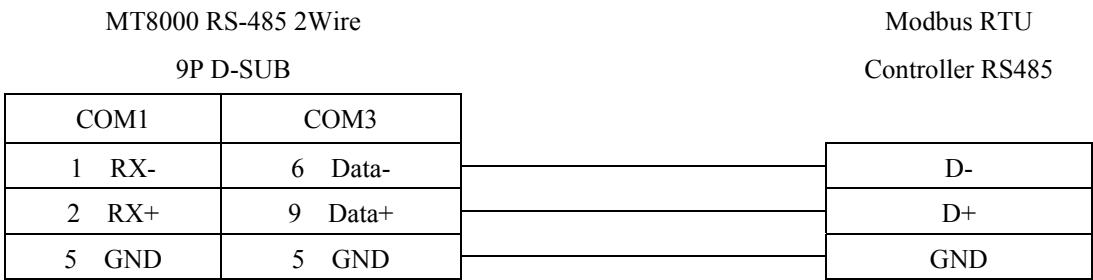
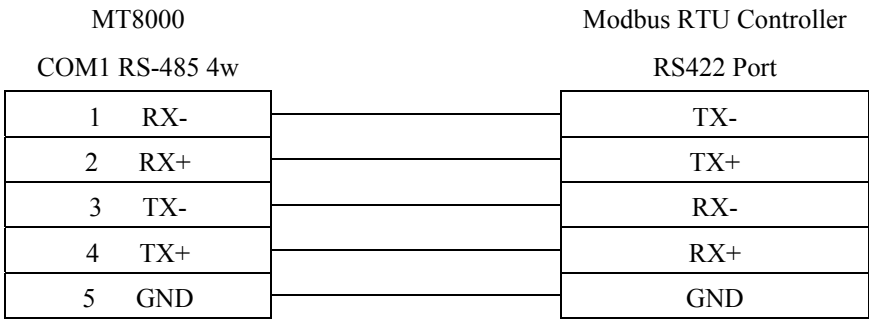
(Note: use 6x device is limited to device of one word only)

## Wiring diagram:

MODBUS RS232 PORT

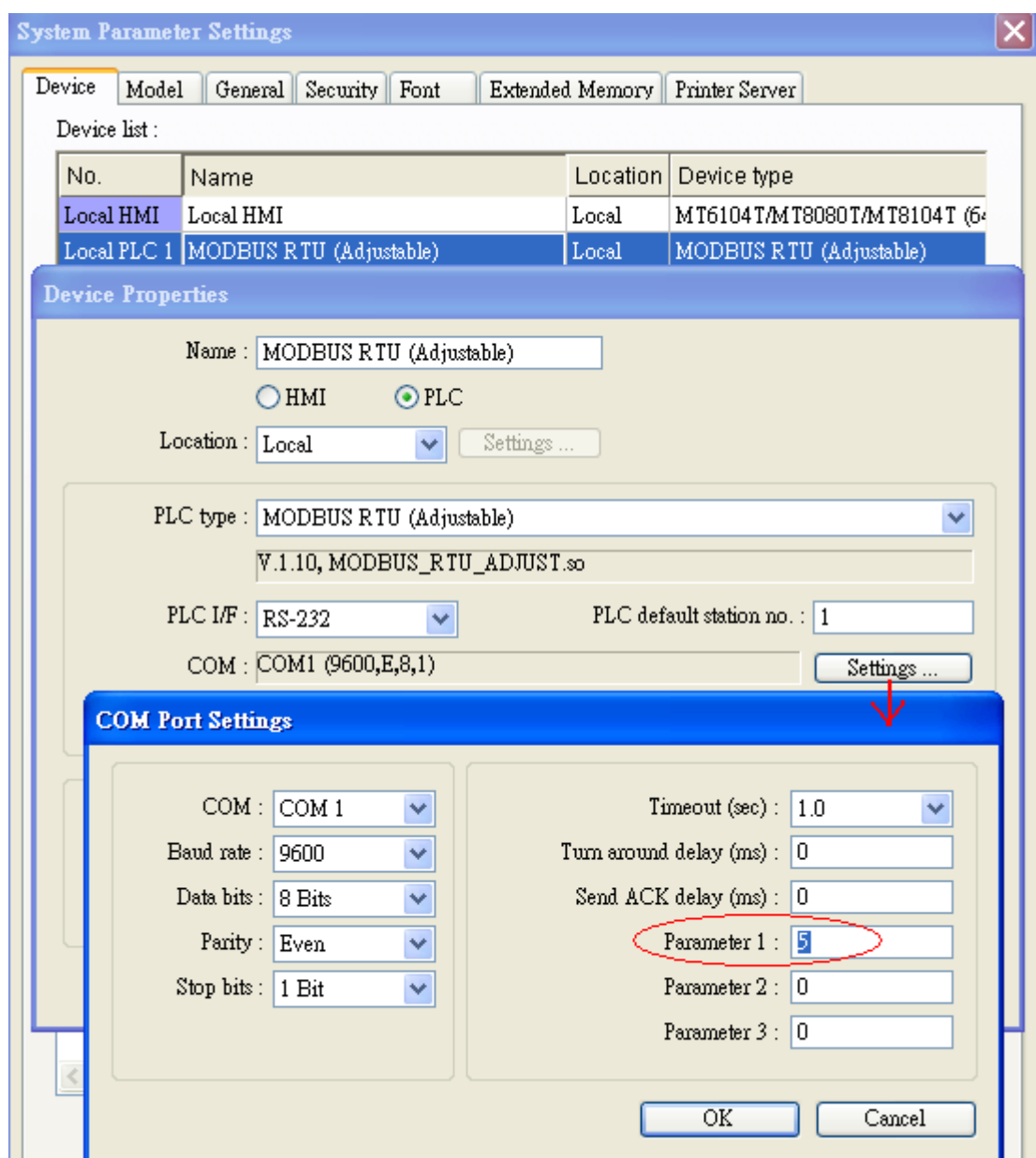


MODBUS RS422/485 PORT



Note: MODBUS RTU (adjustable) usage

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



# 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	<b>HMI Modbus station No.</b>
Port no.			502	

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

## PLC Setting:

Communication mode	<b>Modbus RTU protocol</b>
--------------------	----------------------------

## Device address:

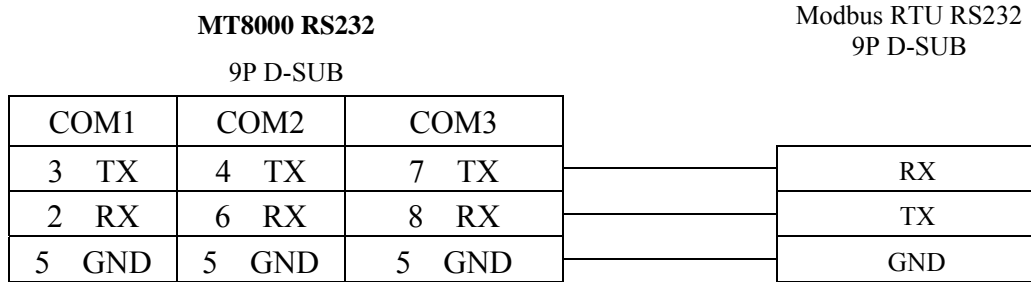
Bit/Word	Device Type	Format	Range	Memo
B	LB	dddd	0~9998	Mapping to 0x/1x 1~9999
W	LW	dddd	0~9998	Mapping to 3x/4x 1~9999
W	RW	dddd	0~55536	Mapping to 3x/4x 10000~65536

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

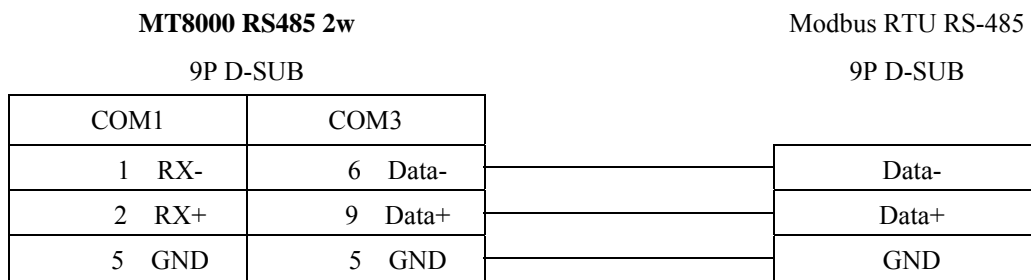
Modbus RTU Server doesn't support function Code 06(to preset single register), please use function code 16(0x10, preset multiple register).

## 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:

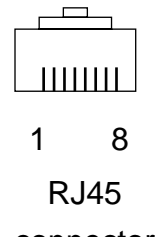
Bit/Word	Device Type	Format	Range	Memo
B	0x	dddd	1-65535	Output bit
B	1x	dddd dd	1-65535	Input bit (read only)
B	3x_bit	dddd dd	100-6553515	Input Register bit (read only)
B	4x_bit	dddd dd	100-6553515	Output Register bit
B	6x_bit	dddd dd	100-6553515	Output Register bit
W	3x	Dddd	1-65535	Input Register (read only)
W	4x	Dddd	1-65535	Output Register
DW	5x	Dddd	1-65535	4x double word swap
W	6x	Dddd	1-65535	4x single word write



## Wiring diagram:

Ethernet::

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



Ethernet: Direct connect (crossover cable)

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

# MODBUS TCP/IP (zero-based)

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:

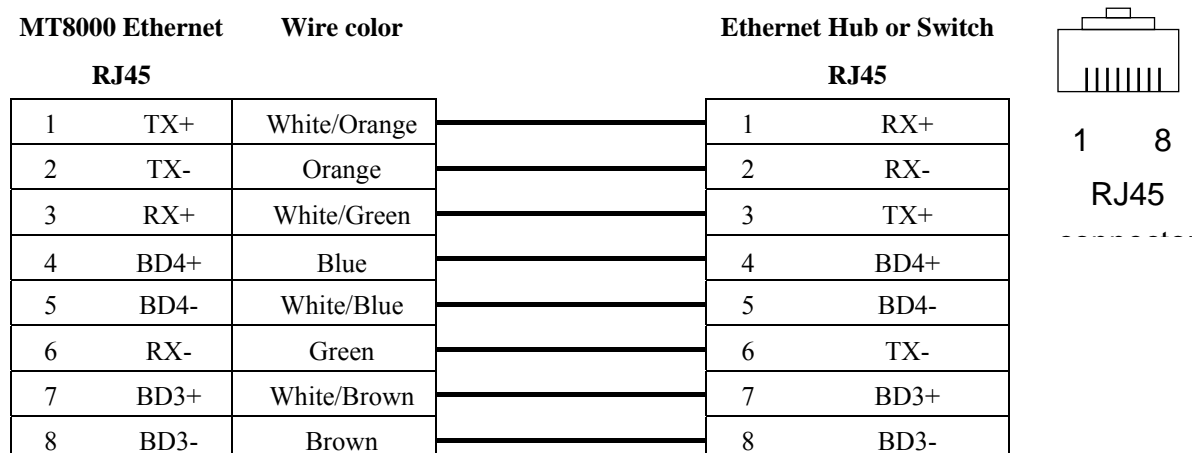
Communication mode	
--------------------	--

## Device address:

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

## Wiring diagram:

Ethernet::



Ethernet: Direct connect (crossover cable)

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

# 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.

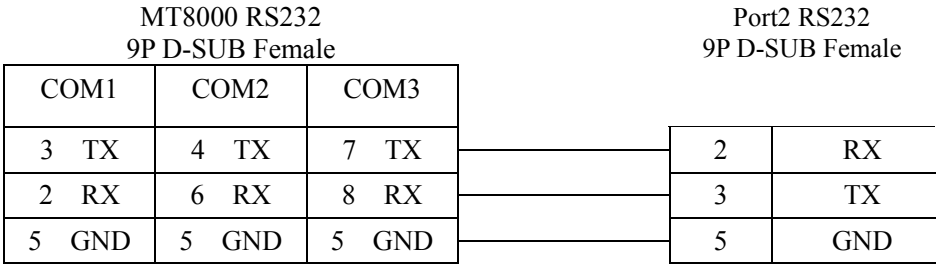
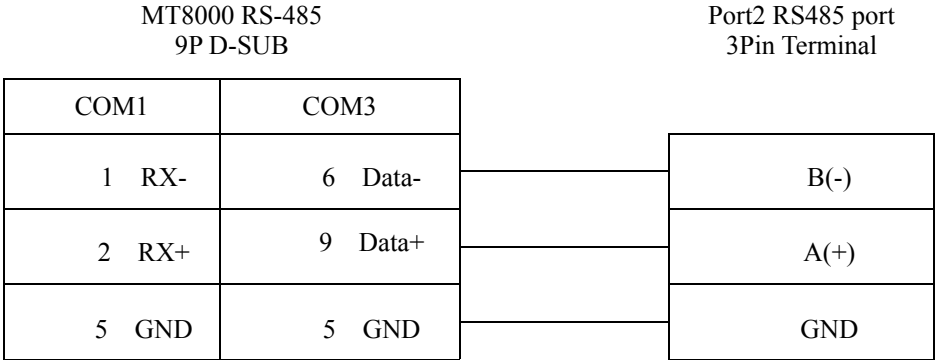
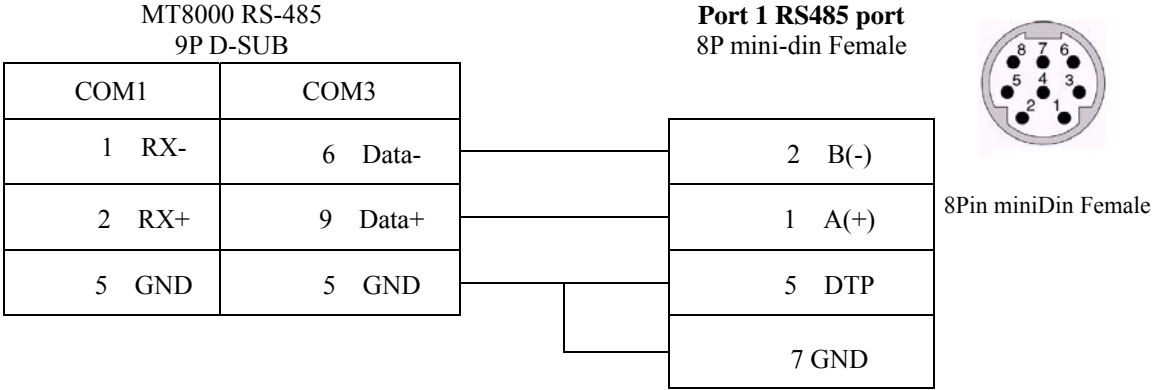
## PLC Setting:

Communication mode	<b>19200, None, 8, 1</b>
Select	<b>Modbus RTU Slave</b>

## 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:



# 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	<b>Host Link Station No.</b>

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

## PLC Setting:

Communication mode	<b>Host Link protocol</b>
--------------------	---------------------------

## 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

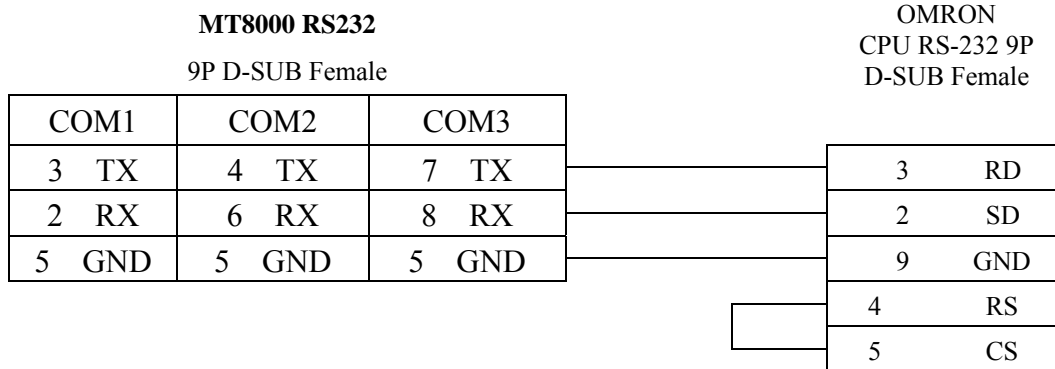
## Wiring diagram:

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

Communication Module:

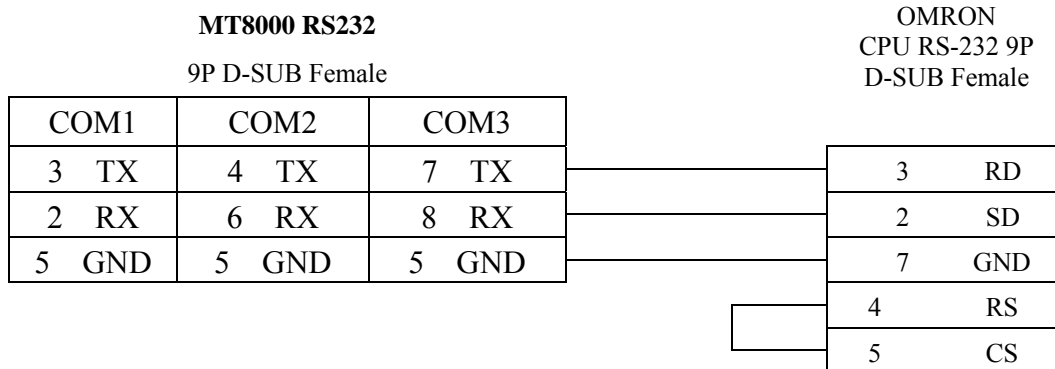
CPM1-CIF01 adapter(for CPM1/CPM1A/CPM2A series,CQM1/CQM1H series)

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	<b>Host Link Station No.</b>

Online Simulator	YES	Extend address mode	YES
Broadcast command	NO		

## PLC Setting:

Communication mode	<b>Host Link protocol</b>
--------------------	---------------------------

## Device address:

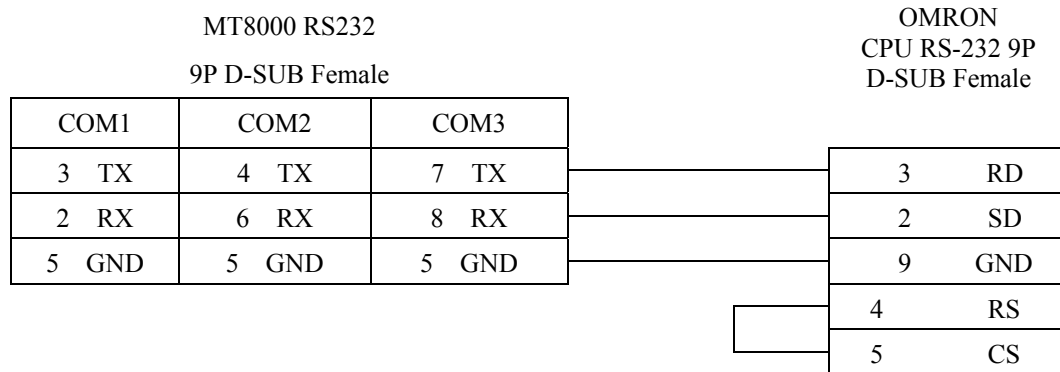
Bit/Word	Device Type	Format	Range	Memo
Bit	D_bit	ddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)
Bit	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)
Bit	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)
Bit	CIO_bit	ddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)
Bit	A_bit	ddd(dd)	ddd:0~959 (dd): 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)



Bit/Word	Device Type	Format	Range	Memo
Word	W	ddd	ddd:0~511	Work Area (WR)
Word	CIO	ddd	ddd:0~6143	Channel I/O (CIO)
Word	A	ddd	ddd:0~959	Auxiliary Relay (AR)
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	<b>FINS Ethernet protocol</b>
--------------------	-------------------------------

## Device address:

Bit/Word	Device Type	Format	Range	Memo
B	D_bit	dddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)
B	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)
B	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)
B	CIO_bit	dddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)
B	A_bit	ddd(dd)	ddd:0~959 (dd): 0~15	Auxiliary Relay (AR)
B	T_bit	dddd	ddd:0~4095	Timer (TIM)
B	C_bit	dddd	ddd:0~4095	Counter (CNT)
W	D	dddddd	ddd:0~32767	Data Memory (DM)
W	H	ddd	ddd:0~511	Holding Area (HR)
W	W	ddd	ddd:0~511	Work Area (WR)
W	CIO	dddd	ddd:0~6143	Channel I/O (CIO)
W	A	ddd	ddd:0~959	Auxiliary Relay (AR)
W	T	dddd	ddd:0~4095	Timer (TIM)
W	C	dddd	ddd:0~4095	Counter (CNT)

## Wiring diagram:

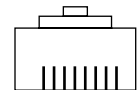
Ethernet:

**MT8000 Ethernet Wire color****RJ45**

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

**Ethernet Hub or Switch****RJ45**

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



1 8

RJ45  
connector

Ethernet: Direct connect (crossover cable)

**MT8000 Ethernet Wire color****RJ45**

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

**OMRON Ethernet****RJ45**

3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
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:

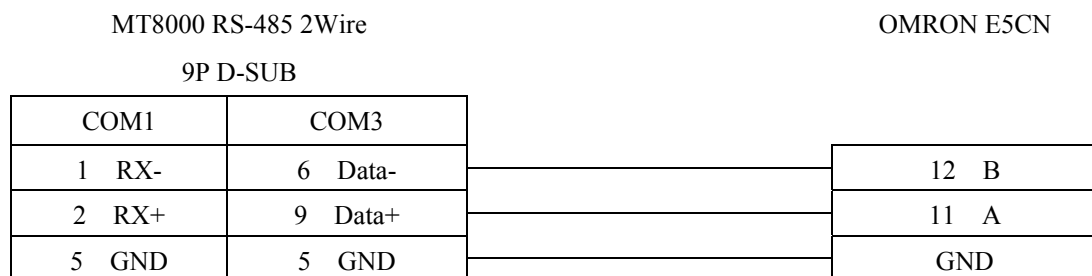
Communication mode	9600, Even, 7, 2 (default)
--------------------	----------------------------

## 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

Bit/Word	Device Type	Format	Range	Memo
W	Operation02_02	hh	0	Multi-SP Set point 2
W	Operation02_03	hh	0	Multi-SP Set point 3
W	Operation03_00	hh	0	AT cancel
W	Operation03_01	hh	0	AT execute
W	Operation04_00	hh	0	Write mode (Backup)
W	Operation04_01	hh	0	Write mode (Ram)
W	Operation05_00	hh	0	Save RAM data
W	Operation06_00	hh	0	Software reset
W	Operation07_00	hh	0	Move to setup area 1
W	Operation08_00	hh	0	Move to protect level

## Wiring diagram:



# 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. <b>FP3 must set 0.</b>

## PLC Setting:

Communication mode	<b>9600,O,8,1(default)</b>
--------------------	----------------------------

## 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 value(EV)	elapse
W	DT	ddd	0~32767	Data Register(DT)	

## Wiring diagram:

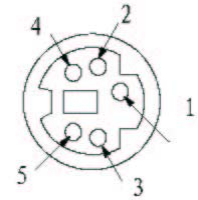
MT8000 RS232

9P D-SUB

FP0, FP2, FP2SH,FPM

CPU Tool port

5P mini DIN RS-232



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

Mini Din 5 Pin  
Female

MT8000 RS232

9P D-SUB

FP0 CPU RS232

3P terminal

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

MT8000 RS232

9P D-SUB

FP1, FP2, FP2SH,FP10SH CPU

9p D-SUB Male RS232

COM1	COM2	COM3			
3 TX	4 TX	7 TX		3	RXD
2 RX	6 RX	8 RX		2	TXD
5 GND	5 GND	5 GND		7	GND
				4	RTS
				5	CTS
				8	CD
				9	ER

MT8000

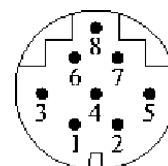
COM1[RS-485]4w 9P

D-SUB

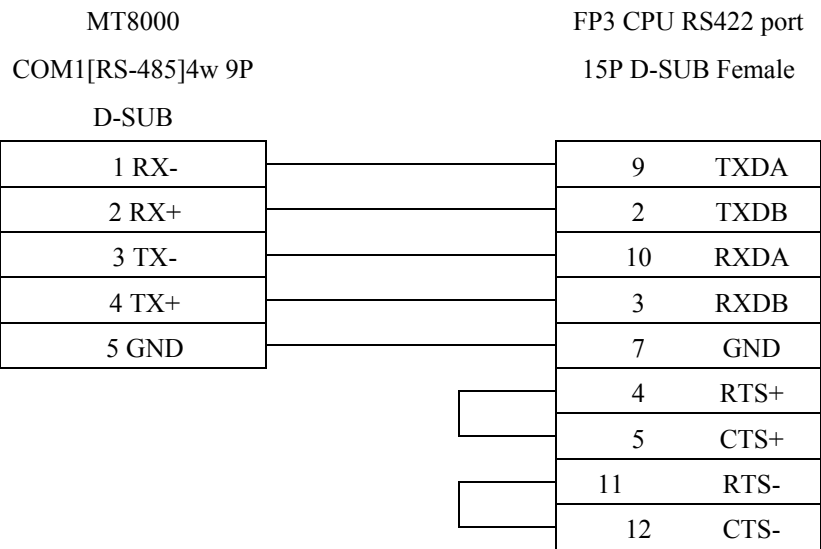
FP1 CPU RS422 port

Hirose 8Pin Port

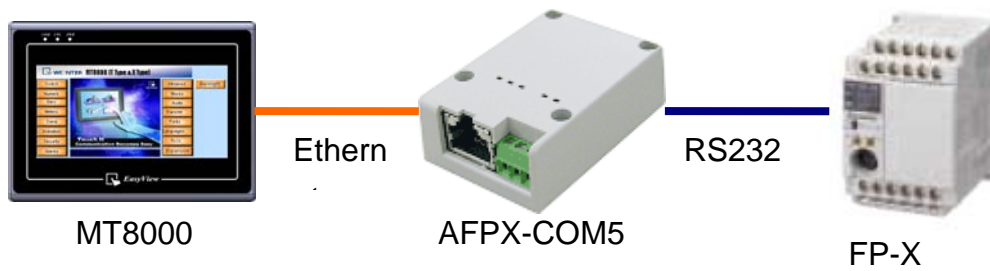
1 RX-		2 TXDA
2 RX+		5 TXDB
3 TX-		3 RXDA
4 TX+		6 RXDB
5 GND		1 GND



Hirose 8Pin Port



Ethernet connect  
TCP port: 9094



**Device Properties**

Name : Panasonic FP

☐ HMI ☒ PLC

Location : Local Settings ...

PLC type : Panasonic FP  
V.1.00, MATSUSHITA\_FP.so

PLC I/F : Ethernet Settings ... PLC default station no. : 1

IP : 192.168.1.15, Port=9094 Settings ...

☐ Use broadcast command

Interval of block pack (words) : 5

Max. read-command size (words) : 24

Max. write-command size (words) : 24

OK Cancel



# 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
DW	Register_Int	DDD(dd)	0-9999(99)	Integer register
DW	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

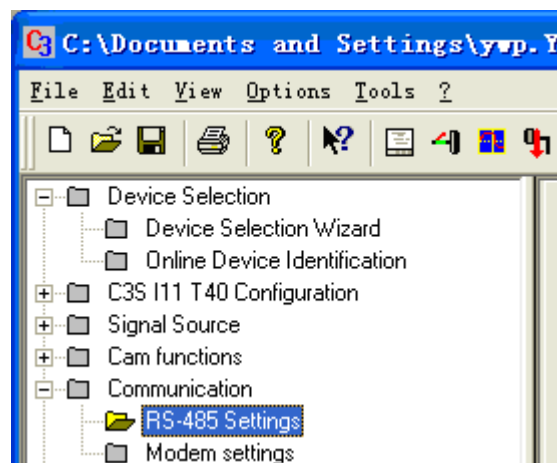
Parker Compax3 PLC

X10 9P D-SUB

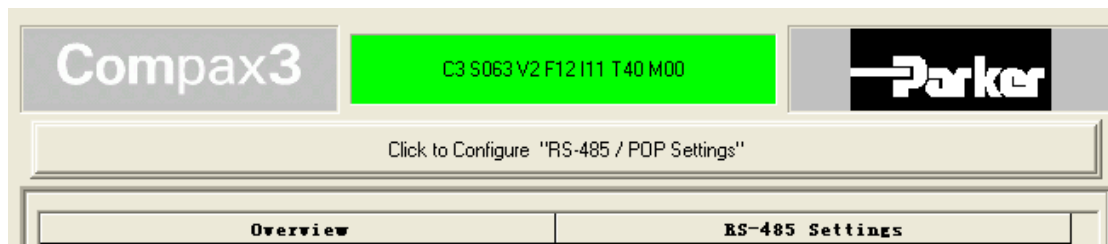
3 RXD
7 TXD
5 GND
1 Enable RS485
9 +5V

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

RS-485 Settings	
Master	General
Multicast Address	98
Device Address	11
Baud rate	9600
Connection Type	Two wire
Parity	No
Stop bits	1
Data bits	8

4. Downloading settings to Compax3 Servo.

5. Setting EB8000 system parameter and connecting with PLC for communication of HMI and Servo.

# 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:

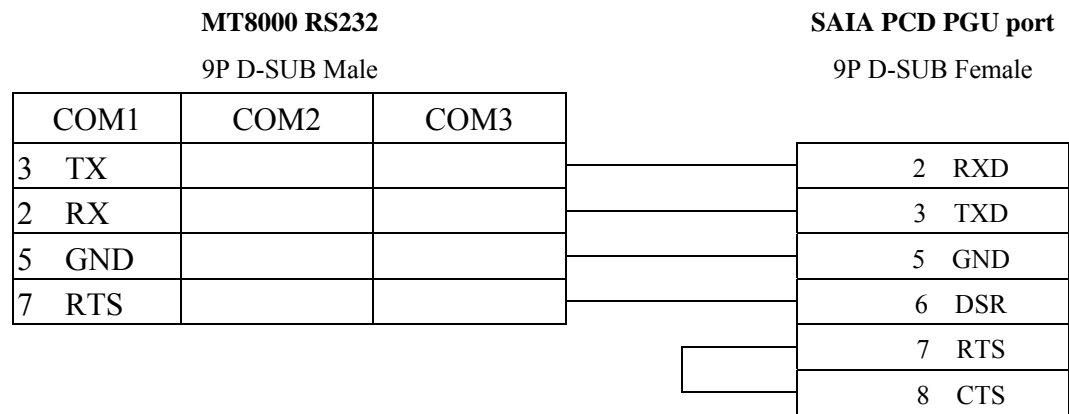
Communication mode	<b>9600,E,7,1(default)</b>
--------------------	----------------------------

## 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

# 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:

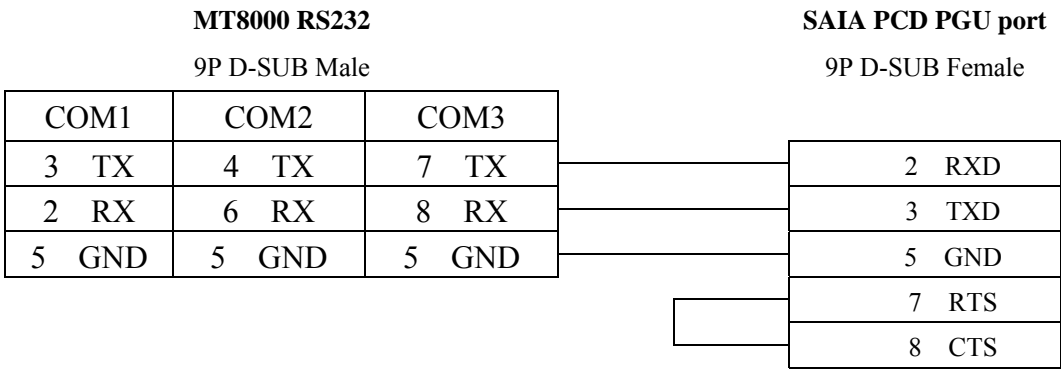
Communication mode	<b>9600,N,8,1(default)</b>
RS232	<b>Port 0-Type:RS232</b>
RS485 2W	<b>S-BUS Mode:Data(S2),Port 1-Type:RS485</b>

## Device address:

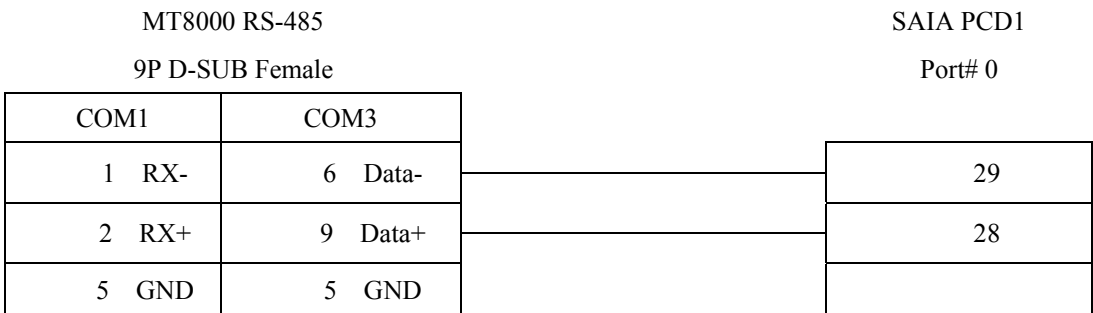
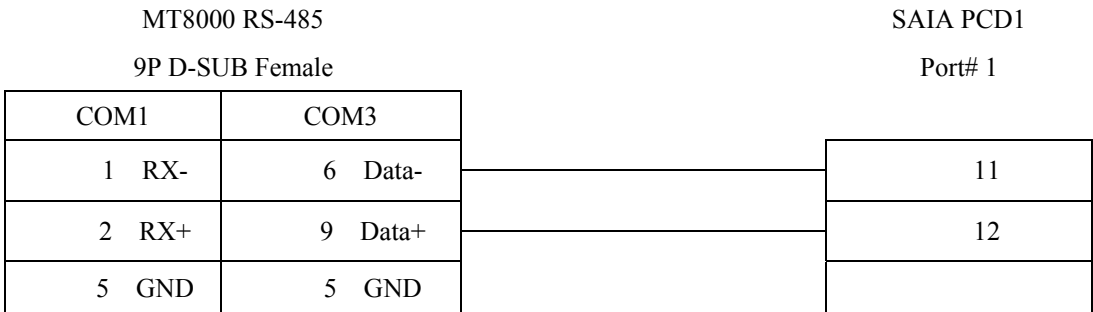
Bit/Word	Device Type	Format	Range	Memo
B	Flag	ddd	ddd=0~8191	
B	Input	ddd	ddd=0~511	
B	Output	ddd	ddd=0~511	
D	Register	ddd	ddd=0~4095	
D	Counter	ddd	ddd=0~1599	
D	Timer	ddd	ddd=0~450	
D	Reg_Float	ddd	ddd=0~4095	support single float point

Wiring diagram:

RS232:



RS485:



# 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

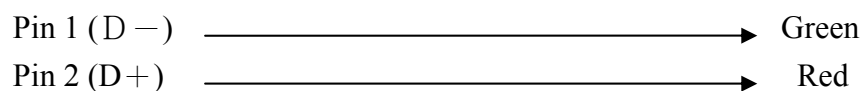
## Wiring diagram:

EasyView MT8000

RS-485 2W (COM 1)

MOVITRAC-07

RS-485





# SIEMENS S7/200

Siemens S7/200 series PLC (CPU212/214/215/216/221/222/224/226/226XM)

<http://www.ad.siemens.com>

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/200		
Com port	RS485 2w	RS485 2w	
Baud rate	9600	9600, 19200, 187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Even	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
PLC Station No.	2		Must same as the PLC setting
Turn around delay (ms)	5		
Reserved 1	30		ACK delay time

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

## PLC Setting:

Communication mode	Set station number as 2
--------------------	-------------------------

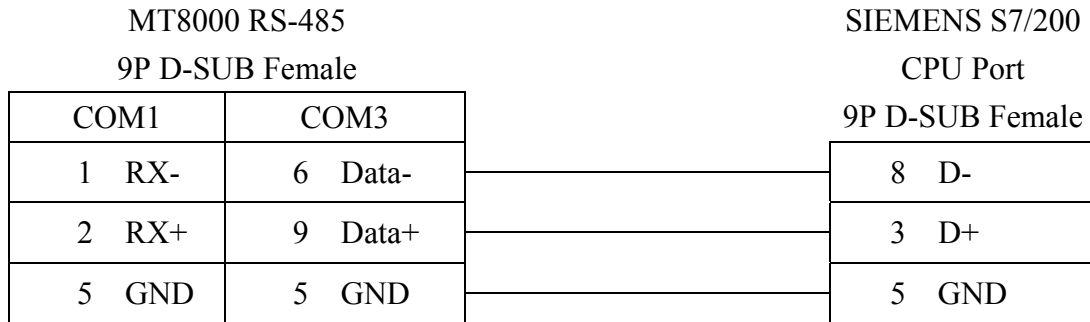
## Device address:

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	dddd(o)	0-102397	V Memory bit address
W	VW	dddd	0-10238	V memory
DW	VD	dddd	0-10236	V memory double word
W	VD_String	dddd	0-10239	V memory double word

W	VW_String	dddd	0-10239	V memory
W	MW	dddd	0-10239	Word memory
W	T	ddd	0-127	Timer
W	C	ddd	0-127	Counter

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

## Wiring diagram:



# 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	dddd(o)	0-102397	V Memory bit address
W	VW	dddd	0-10238	V memory
DW	VD	dddd	0-10236	V memory double word

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

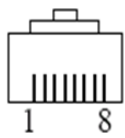
## Wiring diagram:

**MT8000 Ethernet** Wire color

**Ethernet Hub or Switch RJ45**

**RJ45**

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



1 8 RJ45 connector

Ethernet: Direct connect (crossover cable)

**MT8000 Ethernet** Wire color

Ethernet Device

**RJ45**

**RJ45**

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

# SIEMENS S7/300

Siemens S7/300 series PLC

<http://www.ad.siemens.com>

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300		
Com port	RS232		
Baud rate	19200, 38400, 187.5K	9600~187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	2		Must same as the PLC setting

## PLC Setting:

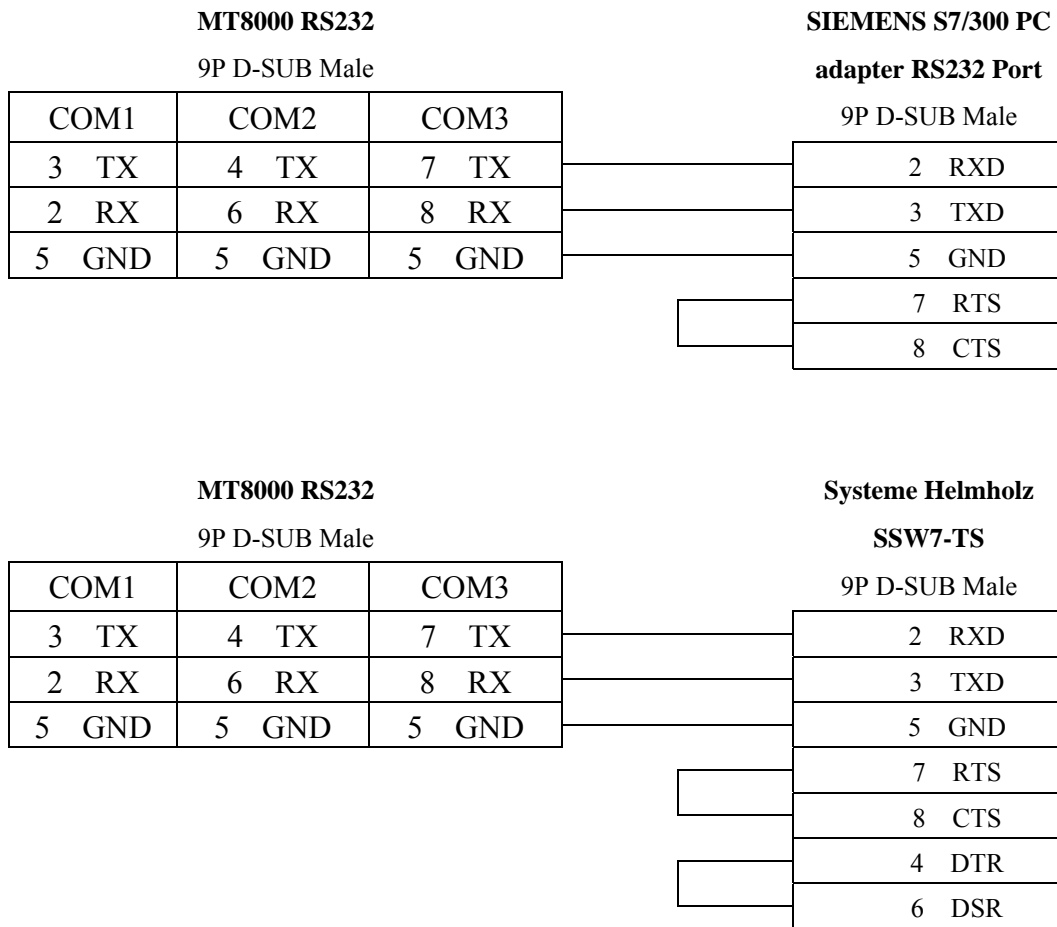
Communication mode	
--------------------	--

## 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 (must be multiple of 4)

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

## Wiring diagram:



# 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 (must be multiple of 4)

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

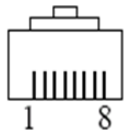
## Wiring diagram:

**MT8000 Ethernet** Wire color

**Ethernet Hub or Switch RJ45**

**RJ45**

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



1 8 RJ45 connector

Ethernet: Direct connect (crossover cable)

**MT8000 Ethernet** Wire color

**Ethernet Device**

**RJ45**

**RJ45**

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



# SIMATIC TI505

SIMATIC TI505 Series PLCs: TI520, TI525, TI530, TI535, TI545, TI555, TI560, TI565, TI575

Using the NITP protocol in a point-to-point single master, single slave format.

[http://www.ad.siemens.de/simatic/controller/index\\_76.htm](http://www.ad.siemens.de/simatic/controller/index_76.htm)

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SIMATIC TI505		
Com port	RS232	RS232, RS485(4W)	
Baud rate	19200	19200	
Parity bit	Odd	Odd	
Data Bits	7	7	
Stop Bits	1	1	
PLC Station No.	0	Does not apply	

## PLC Setting:

Communication mode	NITP protocol
--------------------	---------------

## Device address:

Bit/Word	Device Type	Format	Range	Memo
B	CR	dddd	dddd:1~65535	Internal Relay
B	X	dddd	dddd:1~65535	Discrete input coils
B	Y	dddd	dddd:1~65535	Discrete output coils
W	V	dddd	dddd:1~65535	User data registers
W	STW	dddd	dddd:1~65535	Status word registers
W	TCP	dddd	dddd:1~65535	Timer/counter preset values
W	TCC	dddd	dddd:1~65535	Timer/counter current values
W	WX	dddd	dddd:1~65535	Word discrete inputs
W	WY	dddd	dddd:1~65535	Word discrete outputs

## Wiring diagram:

RS-232:

MT8000 HMI

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

SIMATIC TI505

25Pin D-SUB

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

RS-232:

MT8000 HMI

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

SIMATIC TI505

9Pin D-SUB

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

RS485 4W:

MT8000HMI

COM1 RS-485/4w

9P D-SUB

1	RX-	7	DO(-)
2	RX+	1	DO(+)
3	TX-	8	DI(-)
4	TX+	5	DI(+)
5	GND	6	GND

SIMATIC TI505

9Pin D-SUB

# 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
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

TSX series CPU port

8P mini-din Female

2 D-
1 D+
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:

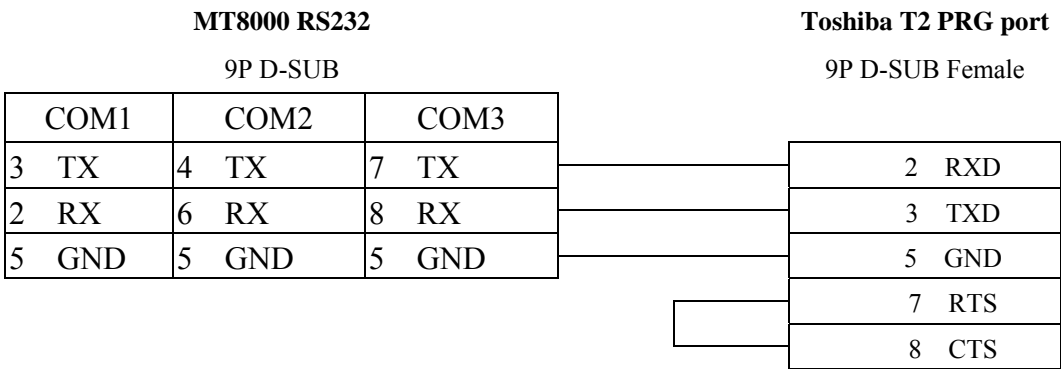
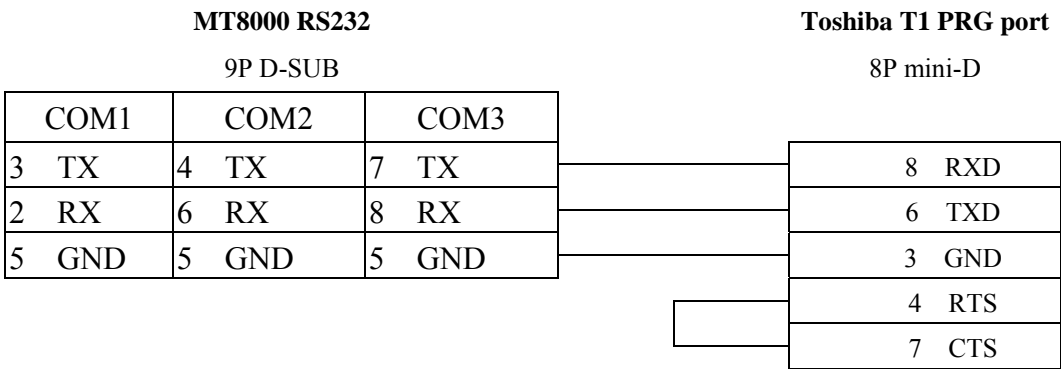
Communication mode	<b>Must set PLC node ID</b>
--------------------	-----------------------------

## Device address:

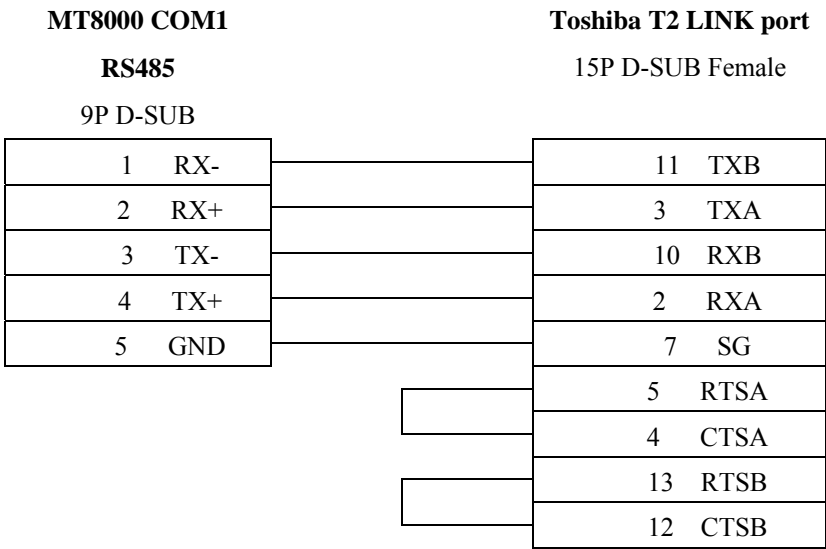
Bit/Word	Device Type	Format	Range	Memo
B	X	ddd(h)	0-9999f	Input Bit
B	Y	ddd(h)	0-9999f	Output Bit
B	R	ddd(h)	0-9999f	Auxiliary Bit
B	S	ddd(h)	0-9999f	Special Bit
W	T	ddd	0-9999	Timer Register
W	C	ddd	0-9999	Counter Register
W	D	ddd	0-9999	Data Memory
W	SW	ddd	0-9999	Special Register
W	XW	ddd	0-9999	Input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

Wiring diagram:

RS232



RS485



# TOSHIBA TC mini series

TOSHIBA MACHINE CO., JAPAN

Web Site: <http://www.toshiba-machine.co.jp>

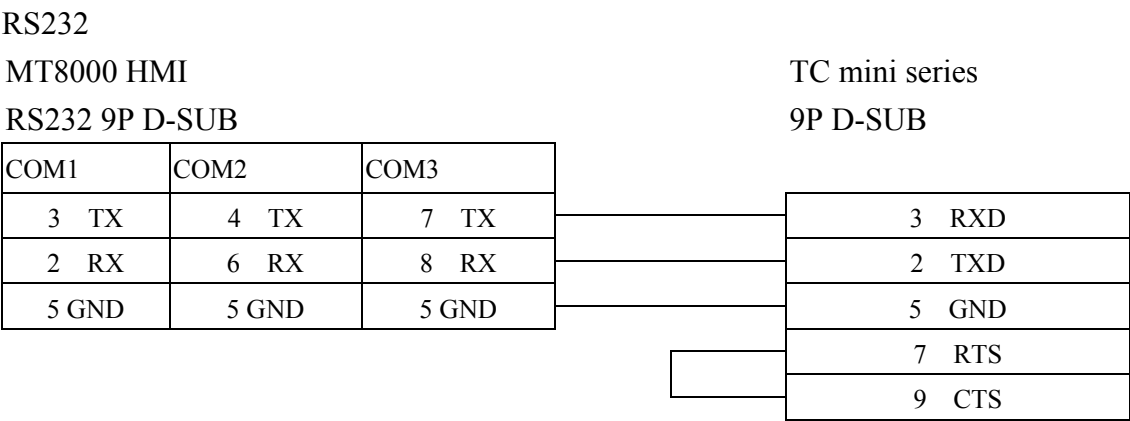
## HMI Setting:

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:**





# 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	<b>9600 E,8,1, Station No=0</b>
--------------------	---------------------------------

## 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

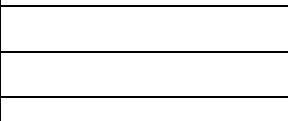
MT8000 PLC[RS485]

9P D-SUB male

1	RX-
2	RX+
5	GND

Toshiba VF-S11  
communication port

RXB
RXA
SG



# 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:

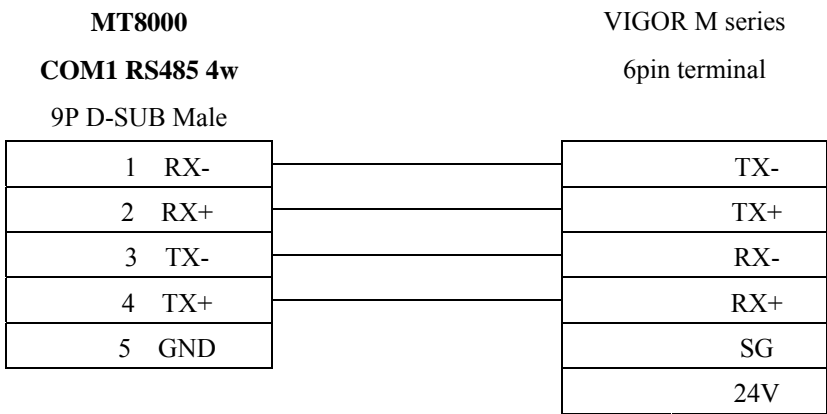
Communication mode	None

## Device address:

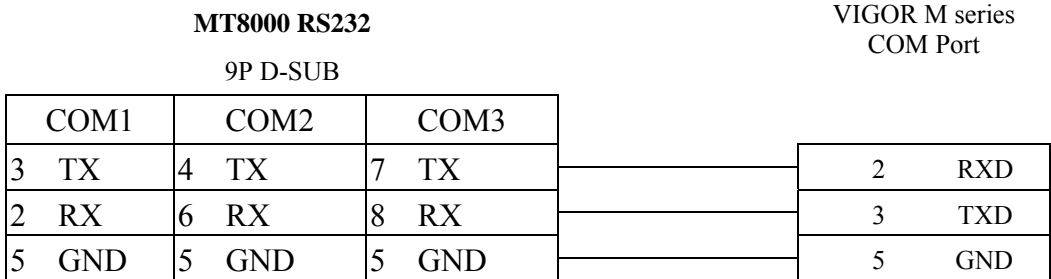
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~177	
B	Y	ooo	0~177	
B	M	dddd	0~4095	
B	S	ddd	0~999	
B	T	ddd	0~255	
B	C	ddd	0~255	
W	TV	ddd	0~255	
W	CV	ddd	0~255	
W	D	dddd	0~4095	
W	DL	dddd	0~4095	Double word

# Wiring diagram:

RS-485 4wire:



RS-232:



# 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	<b>Use Personal Communication Link</b> <b>Use checksum</b> <b>Use End Character</b>
--------------------	---

## 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	3	RXD
2 RX	6 RX	8 RX	2	TXD
5 GND	5 GND	5 GND	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	RXD
2 RX	6 RX	8 RX	3	TXD
5 GND	5 GND	5 GND	5	GND
			7	RTS
			8	CTS

## How to get the WideField communication setting

If you want get the WideField communication setting, select [Tool]->[Set Environment] default is Automatic. Using the Automatic Recognition, Wide Field software will connect the Current PLC and get the PLC communication setting. If you have know the PLC communication configuration, you also can select the Fixed mode ,It will connect the PLC quickly.

Setup Environment

Setup Circuit Display | Setup Program Syntax Check | Setup Toolbar

Setup Folders | Setup Communication

Communication Media

☒ RS-232C ☐ RS-232C via Modem ☐ Ethernet Setup Modem

RS-232C Communication

Connection Method

☒ Automatic Recognition ☐ Fixed 19200bps Even Parity

Communication Timeout 1 s

Number of Retries 2

COM Port Number 1

Ethernet Communication

Destination IP Address

CPU Number 1

Connection Timeout 20 s

OK Cancel Default Help

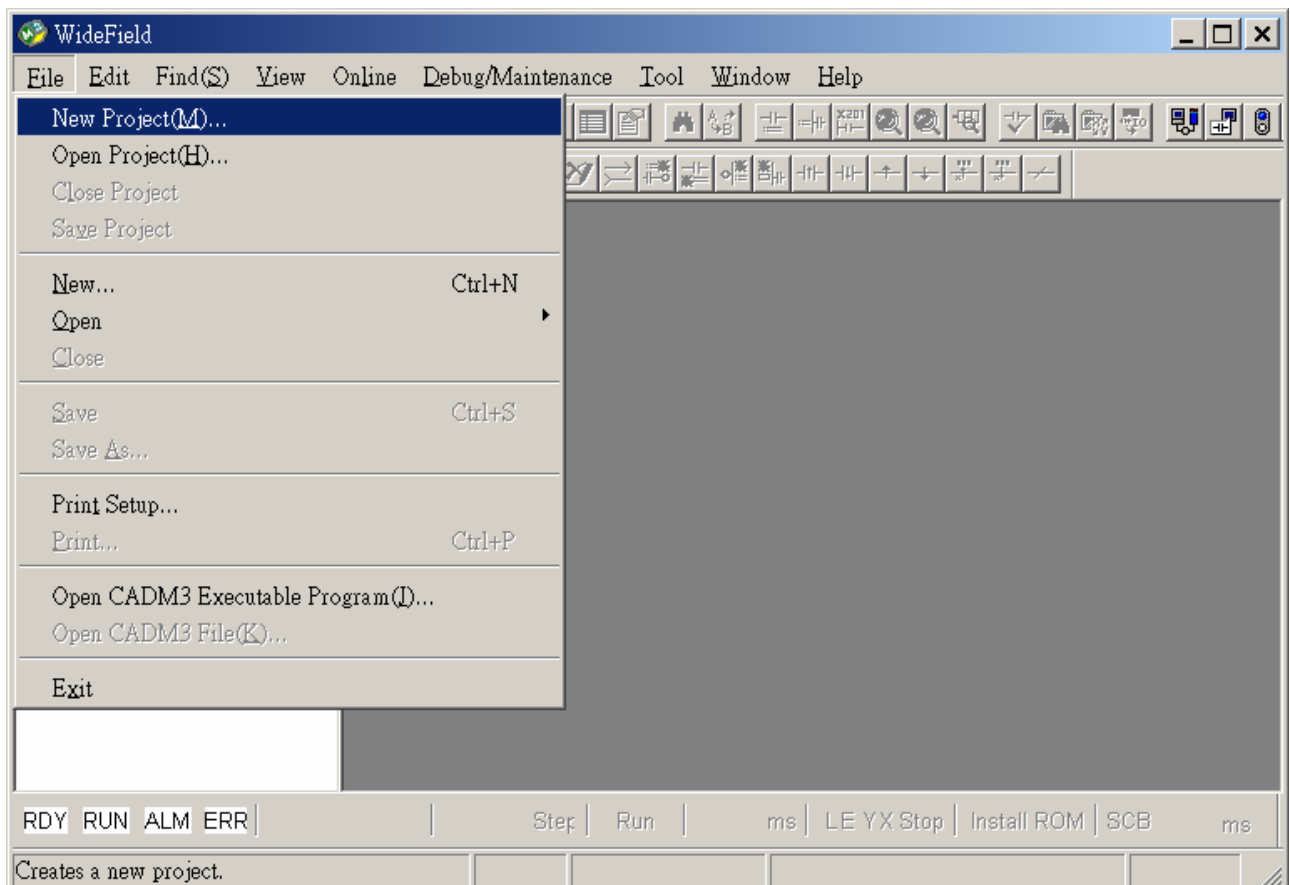
P.S Because use Personal computer link, when you connecting to PLC it will delay about 20sec for test communication.

## How to Setting YOKOGAWA PLC Communcation configuration.

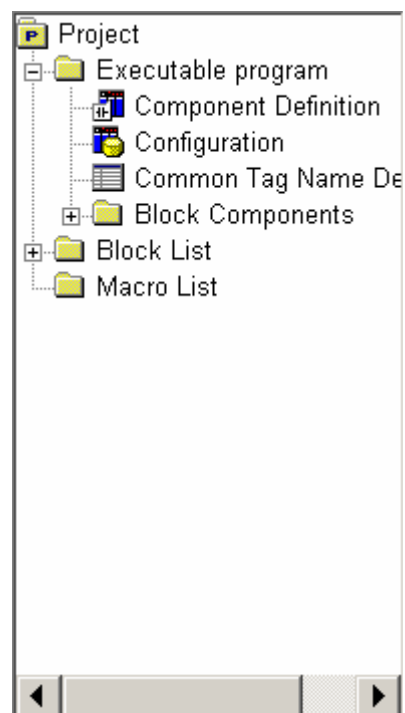
YOKOGAWA FA-M3

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

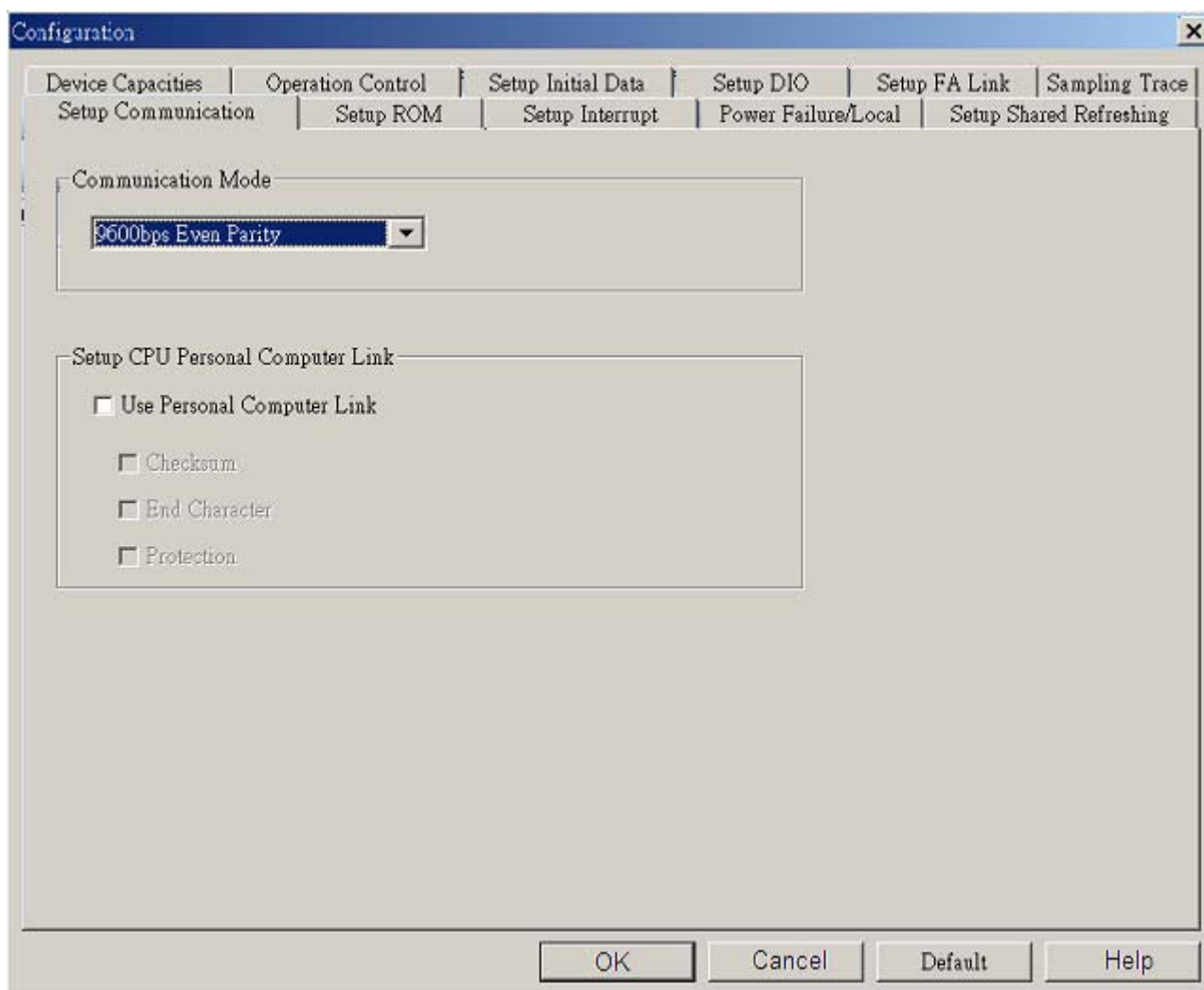
[File]->[New Project] to create a new project

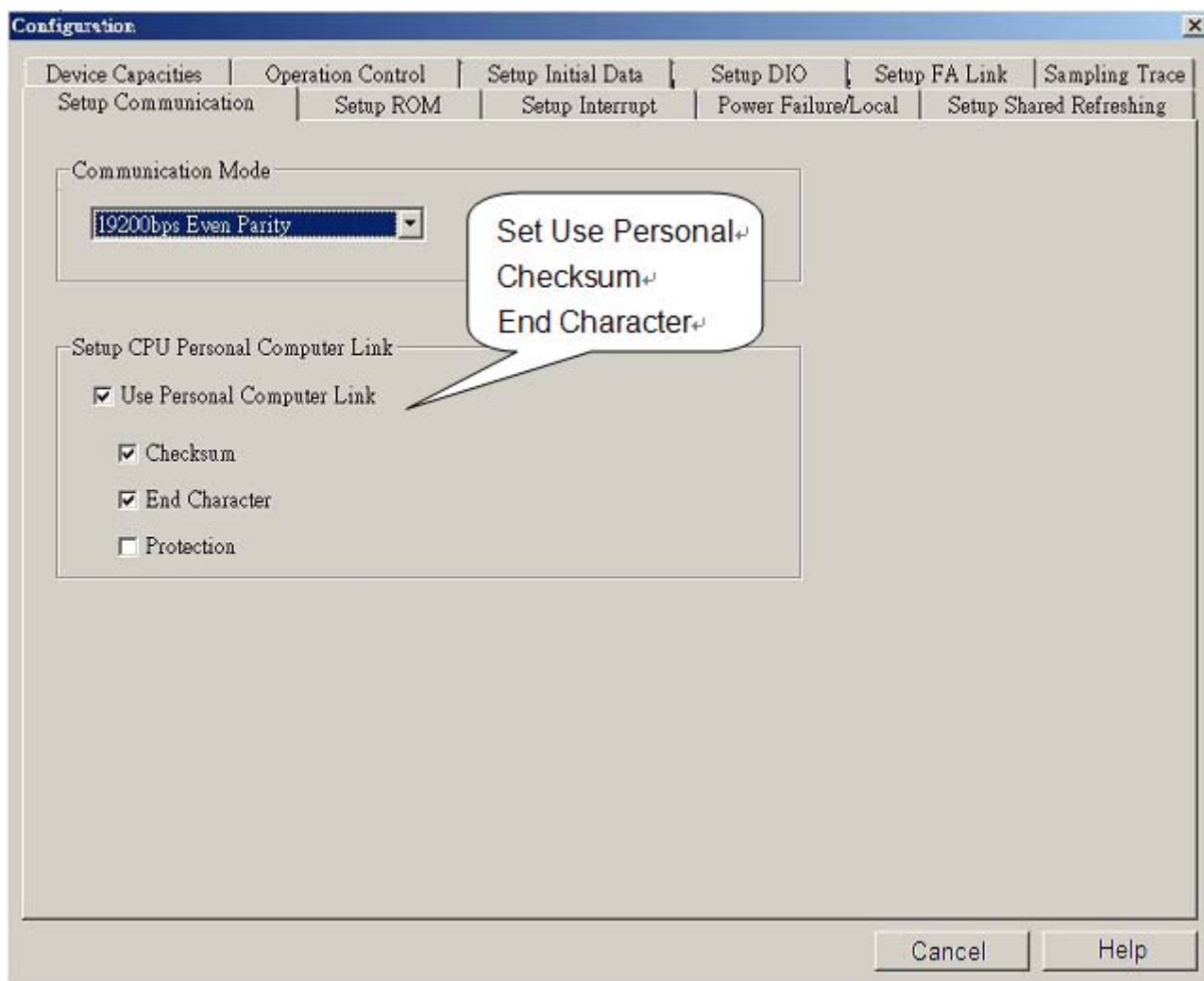


click “Configuration” for setup communication.









# 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>

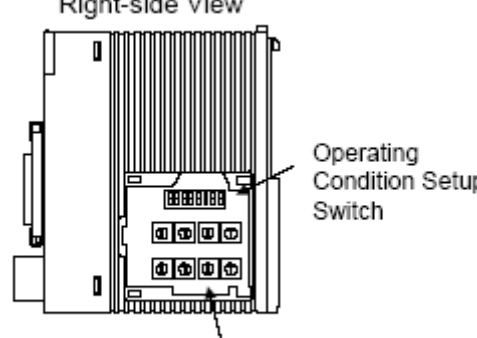
## HMI Setting:

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	<b>Set IP Address</b> <b>Set all condition setup switch OFF.</b>
--------------------	---

Right-side View



Operating Condition Setup Switch

IP Address Setup Switch

Example: Setting the IP address to 192.168.250.210

0	8	A	2

Hexa decimal	C0	A8	FA	D2
	↑	↑	↑	↑
Decimal	192	168	250	210

## 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**    **Wire color**

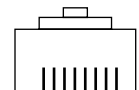
**RJ45**

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

**Ethernet Hub or Switch**

**RJ45**

1	RX+
2	RX-
3	TX+
4	BD4+
5	BD4-
6	TX-
7	BD3+
8	BD3-



1      8  
RJ45  
connector

Ethernet: Direct connect (crossover cable)

**MT8000 Ethernet**    **Wire color**

**RJ45**

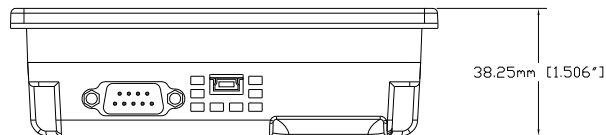
1	TX+	White/Orange
2	TX-	Orange
3	RX+	White/Green
4	BD4+	Blue
5	BD4-	White/Blue
6	RX-	Green
7	BD3+	White/Brown
8	BD3-	Brown

**FA-M3 Ethernet module**

**RJ45**

3	RX+
6	RX-
1	TX+
4	BD4+
5	BD4-
2	TX-
7	BD3+
8	BD3-

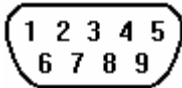
# MT6050i Com Port Connection Guide



Bottom View

## MT6050i

Pin assignment of the 9 Pin, Male,  
SUB-D Com1 [RS-232], Com1 [RS-485 2w/4w]



Pin#	Symbol	Com1[RS485] 4 wire	Com1[RS485] 2 wire	Com1[RS232]
1	Rx-	Rx-	Data-	
2	Rx+	Rx+	Data+	
3	Tx-	Tx-		
4	Tx+	Tx+		
5	GND	Signal Ground		
6	TxD			Transmit
7				
8				
9	RxD			Receive

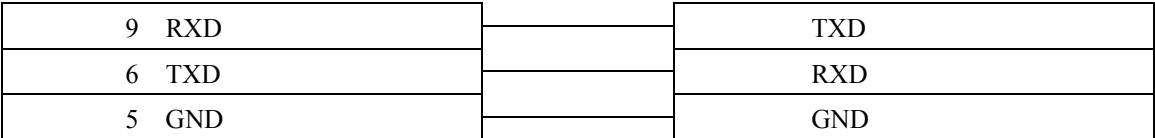
## Wiring diagram:

MT6050i COM1 [RS-232]

PLC RS-232

9P D-SUB Female

Communication Com Port interface



MT6050i COM1 [RS-485 2w]

9P D-SUB Female

1	Data-
2	Data+

PLC RS-485 2w

Communication Com Port interface

Data-
Data+

MT6050i COM1 [RS-485 24w]

9P D-SUB Female

1	RX-
2	RX
3	TX-
4	TX+

PLC RS-485 2w

Communication Com Port interface

TX-
TX+
RX-
RX+