MODBUS ASCII

Supported Series: MODBUS ASCII CONTROLLER
Website: http://www.modbus.org

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	MODBUS ASCII		
PLC I/F	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/ 57600/115200	
Data bits	8	7,8	
Parity	Even	Even, Odd, None	
Stop bits	1	1,2	
PLC sta. 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	1x	DDDDD	1 ~ 65535	Input bit (read only)
B	0x	DDDDD	1 ~ 65535	Output bit
B	3x_Bit	DDDDDdd	100 ~ 6553515	Input Register bit (read only)
B	4x_Bit	DDDDDdd	100 ~ 6553515	Output Register bit
W	3x	DDDDD	1 ~ 65535	Input Register (read only)
W	4x	DDDDD	1 ~ 65535	Output Register
W	6x	DDDDD	1 ~ 65535	

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 registers

3xbit is equivalent to 3x

4xbit is equivalent to 4x

Wiring Diagram:

RS232 (Diagram 1 ~ Diagram 3)

Diagram 1

cMT Series	***cMT3071 / cMT3072 / cMT3090 / cMT3103 / cMT3151***
eMT Series	***eMT3070 / eMT3105 / eMT3120 / eMT3150***
MT-iE	***MT8073iE / MT8102iE***
MT-XE	***MT8092XE***
MT-iP	***MT6103iP / MT8102iP***

HMI				PLC
	COM1	COM3		RS232
	RS232 9P Female	RS232 9P Female		
Rx	2	8	⟷	TXD
Tx	3	7	⟷	RXD
GND	5	5	⟷	GND
			→	RTS
			←	CTS

Diagram 2

cMT Series	***cMT-SVR / cMT-G01 / cMT-G02 / cMT-HDM / cMT-FHD***
mTV	***mTV***
MT-iE	***MT8070iE / MT6070iE / MT8100iE / MT8121iE / MT8150iE / MT8071iE / MT6071iE / MT8072iE / MT6072iE / MT8073iE / MT8101iE / MT8102iE / MT8103iE***
MT-XE	***MT8121XE / MT8150XE / MT8090XE***

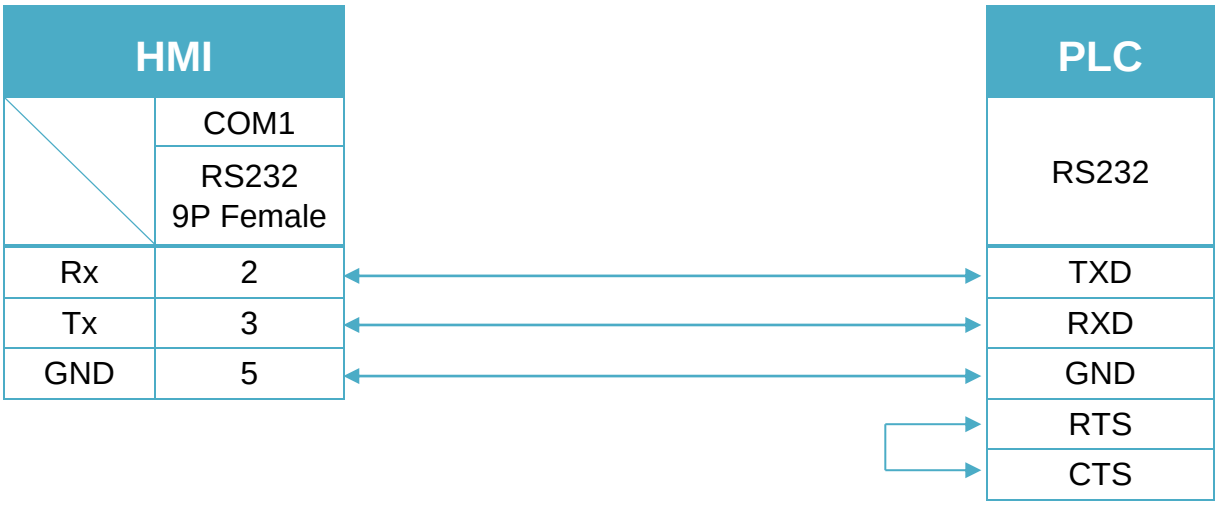
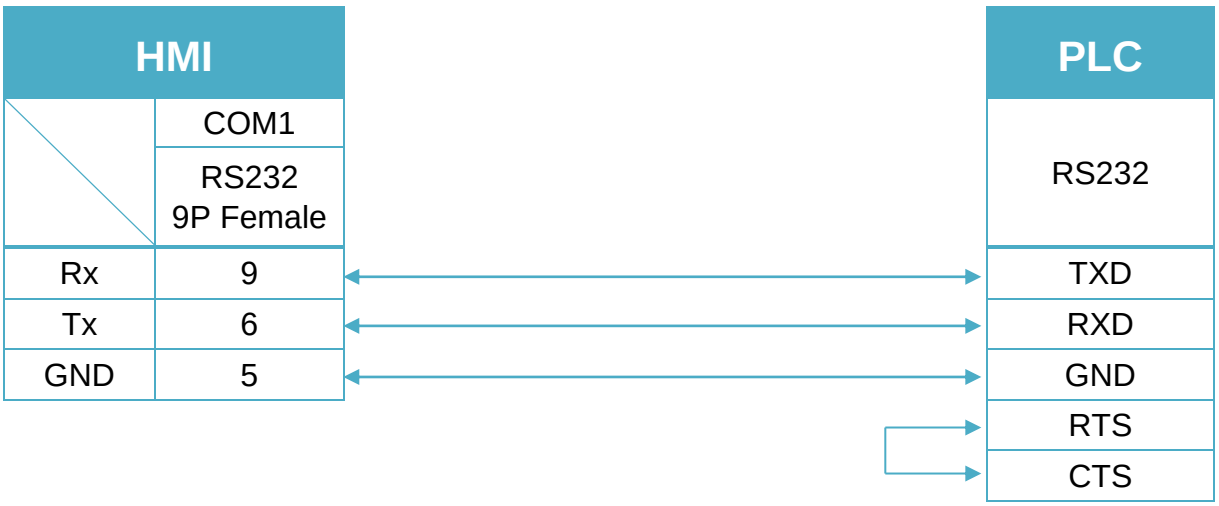


Diagram 3

MT-iE	***MT8050iE / MT8053iE***
MT-iP	***MT6051iP / MT8051iP / MT6071iP / MT8071iP***



RS485 4W (Diagram 4 ~ Diagram 7)

Diagram 4

cMT Series	***cMT3151***
eMT Series	***eMT3070 / eMT3105 / eMT3120 / eMT3150***
MT-iE	***MT8070iE / MT6070iE / MT8100iE / MT8121iE / MT8150iE***
MT-XE	***MT8121XE / MT8150XE***

HMI			PLC
	COM1 RS485 4W 9P Male		RS485 4W
Rx-	1	⟷	TX-
Rx+	2	⟷	TX+
Tx-	3	⟷	RX-
TX+	4	⟷	RX+
GND	5	⟷	GND

Diagram 5

cMT Series	***cMT-SVR / cMT-G01 / cMT-G02 / cMT-HDM / cMT-FHD***
mTV	***mTV***

HMI			PLC
	COM2 RS485 4W 9P Female		RS485 4W
Rx-	7	⟷	TX-
Rx+	6	⟷	TX+
Tx-	9	⟷	RX-
TX+	8	⟷	RX+
GND	5	⟷	GND

Diagram 6

cMT Series	***cMT3071 / cMT3072 / cMT3090 / cMT3103***
MT-iE	***MT8071iE / MT6071iE / MT8072iE / MT6072iE / MT8073iE / MT8101iE / MT8102iE / MT8103iE***
MT-XE	***MT8090XE / MT8092XE***
MT-iP	***MT6071iP / MT8071iP / MT6103iP / MT8102iP***

HMI			PLC
	COM2 RS485 4W 9P Male		RS485 4W
Rx-	1	⟷	TX-
Rx+	2	⟷	TX+
Tx-	3	⟷	RX-
TX+	4	⟷	RX+
GND	5	⟷	GND

Diagram 7

MT-iE	***MT8050iE / MT8053iE***
MT-iP	***MT6051iP / MT8051iP***

HMI			PLC
	COM1 RS485 4W 9P Female		RS485 4W
Rx-	1	⟷	TX-
Rx+	2	⟷	TX+
Tx-	3	⟷	RX-
TX+	4	⟷	RX+
GND	5	⟷	GND

RS485 2W (Diagram 8 ~ Diagram 13)

Diagram 8

cMT Series	***cMT3151***
eMT Series	***eMT3070 / eMT3105 / eMT3120 / eMT3150***

HMI				PLC
	COM1	COM3		RS485 2W
	RS485 2W 9P Male	RS485 2W 9P Male		
Data-	1	6	⟷	D-
Data+	2	9	⟷	D+
GND	5	5	⟷	GND

Diagram 9

cMT Series	***cMT-SVR / cMT-G01 / cMT-G02 / cMT-HDM / cMT-FHD***
mTV	***mTV***

HMI				PLC
	COM2	COM3		RS485 2W
	RS485 2W 9P Female	RS485 2W 9P Female		
Data-	7	4	⟷	D-
Data+	6	1	⟷	D+
GND	5	5	⟷	GND

Diagram 10

MT-iE	***MT8070iE / MT6070iE / MT8100iE / MT8121iE / MT8150iE***
MT-XE	***MT8121XE / MT8150XE***

HMI				PLC
	COM1	COM3		RS485 2W
	RS485 2W 9P Male	RS485 2W 9P Male		
Data-	1	7	⟷	D-
Data+	2	8	⟷	D+
GND	**5**	**9**	⟷	GND

Diagram 11

cMT Series	***cMT3071 / cMT3072 / cMT3090 / cMT3103***
MT-iE	***MT8071iE / MT6071iE / MT8072iE / MT6072iE / MT8073iE / MT8101iE / MT8102iE / MT8103iE***
MT-XE	***MT8090XE / MT8092XE***
MT-iP	***MT6103iP / MT8102iP***

HMI				PLC
	COM2	COM3		RS485 2W
	RS485 2W 9P Male	RS485 2W 9P Male		
Data-	1	6	⟷	D-
Data+	2	9	⟷	D+
GND	5	5	⟷	GND

Diagram 12

MT-iE	***MT8050iE / MT8053iE***
MT-iP	***MT6051iP / MT8051iP***

HMI				PLC
	COM1	COM3		RS485 2W
	RS485 2W 9P Female	RS485 2W 9P Female		
Data-	1	7	⟷	D-
Data+	2	8	⟷	D+
GND	5	5	⟷	GND

Diagram 13

MT-iP	***MT6071iP / MT8071iP***

HMI			PLC
	COM2		RS485 2W
	RS485 2W 9P Female		
Data-	1	⟷	D-
Data+	2	⟷	D+
GND	5	⟷	GND