MODBUS ASCII

MODBUS ASCII CONTROLLER

http://www.modbus.org

HMI Setting:

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

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

PLC Setting:

Communication mode	Modbus ASCII protocol

Device address:

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

Modbus RTU function code:

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

3xbit is equivalent to 3x

4xbit is equivalent to 4x

Wiring diagram:

MODBUS RS232 PORT

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

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Controller RS232

Port

RXD
TXD
GND
RTS
CTS

MODBUS RS422/485 PORT

MT8000

COM1 RS-485 4w

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

Modbus ASCII Controller

RS422 Port

TX-
TX+
RX-
RX+
GND

MT8000 RS-485 2Wire

9P D-SUB

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

Modbus ASCII

Controller RS485

D-
D+
GND