

MODBUS TCP/IP

Supported Series: Modbus RTU TCP/IP device.

Website: <http://www.modbus.org>

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	MODBUS TCP/IP		
PLC I/F	Ethernet		
Port no.	502		
PLC sta. no.	1	0~255	

Device Address:

Bit/Word	Device type	Format	Range	Memo
B	0x	DDDDD	1 ~ 65535	Output bit
B	0x_single_Bit	DDDDD	1 ~ 65535	
B	0x_multi_coils	DDDDD	1 ~ 65535	
B	0x_8bits_write	DDDDD	1 ~ 65535	
B	1x	DDDDD	1 ~ 65535	Input bit (read only)
B	1x_single_Bit	DDDDD	1 ~ 65535	
B	3x_bit	DDDDDdd	100 ~ 6553515	Input Register bit(read only)
B	4x_bit	DDDDDdd	100 ~ 6553515	Output Register bit
B	6x_bit	DDDDDdd	100 ~ 6553515	Output Register bit
B	0x_1	DDDDD	1 ~ 65535	
B	0x_2	DDDDD	1 ~ 65535	
B	0x_3	DDDDD	1 ~ 65535	
B	0x_4	DDDDD	1 ~ 65535	
B	0x_5	DDDDD	1 ~ 65535	
B	0x_6	DDDDD	1 ~ 65535	
B	0x_7	DDDDD	1 ~ 65535	
B	0x_8	DDDDD	1 ~ 65535	
B	0x_9	DDDDD	1 ~ 65535	
B	1x_1	DDDDD	1 ~ 65535	
B	1x_2	DDDDD	1 ~ 65535	

Bit/Word	Device type	Format	Range	Memo
B	1x_3	DDDDD	1 ~ 65535	
B	1x_4	DDDDD	1 ~ 65535	
B	1x_5	DDDDD	1 ~ 65535	
B	1x_6	DDDDD	1 ~ 65535	
B	1x_7	DDDDD	1 ~ 65535	
B	1x_8	DDDDD	1 ~ 65535	
B	1x_9	DDDDD	1 ~ 65535	
W	3x	DDDDD	1 ~ 65535	Input Register
DW	3x_Double	DDDDD	1 ~ 65535	*Note1
QW	3x_QWord	DDDDD	1 ~ 65535	64bit
W	4x	DDDDD	1 ~ 65535	Output Register
DW	4x_Double	DDDDD	1 ~ 65535	*Note1
QW	4x_QWord	DDDDD	1 ~ 65535	64bit
W	4x string central europe	DDDDD	1 ~ 65535	Convert the Central Europe ASCII to Unicode.
W	4x string central europe (rev)	DDDDD	1 ~ 65535	
DW	5x	DDDDD	1 ~ 65535	4x double word swap
W	6x	DDDDD	1 ~ 65535	4x single word write
W	VendorName	DDD	0 ~ 255	Function Code 43
W	ProductCode	DDD	0 ~ 255	
W	MajorMinorRevision	DDD	0 ~ 255	

Note1: Go the [System Parameter Settings] -> [Device Properties] and click [Conversion] to set the data format of device types 3x, 4x, 6x, 3x_double, 4x double, 3x_QWord, 4x_QWord.

Conversion
X

3x

☐ AB -> BA

4x

☐ AB -> BA

6x

☐ AB -> BA

3x_Double

☐ AB -> BA
☐ ABCD -> CDAB

4x_Double

☒ AB -> BA
☐ ABCD -> DCBA

3x_QWord

☒ AB -> BA
☒ ABCD -> DCBA
☐ ABCDEFGH -> HGFEDCBA

4x_QWord

☐ AB -> BA
☐ ABCD -> CDAB
☐ ABCDEFGH -> EFGHABCD

3x_Bit

☐ AB -> BA

4x_Bit

☐ AB -> BA

6x_Bit

☐ AB -> BA

* AB : 16-bit type, ABCD : 32-bit data, ABCDEFGH : 64-bit data

Modbus TCP/IP Function Code:

Device type	Read	Write
0x	0x01 Read coil	0x05 write single coil
0x_multi_coils	0x01 Read coil	0x0f write multiple coils
0x_8bits_write	0x01 Read coil	0x0f write multiple coils
1x	0x02 Read discrete input	X
3x / 3x_Bit	0x04 Read input register	X
4x / 4x_Bit	0x03 Read holding register	0x10 write multiple registers
5x	0x03 Read holding register	0x10 write multiple registers
6x	0x03 Read holding register	0x06 write single register

Note: EBPro V6.03.02 or later supports 64 bits data type (**cMT Series only**), but please note that the address limit range is 48 bits in maximum..

Wiring Diagram:

Ethernet cable:

