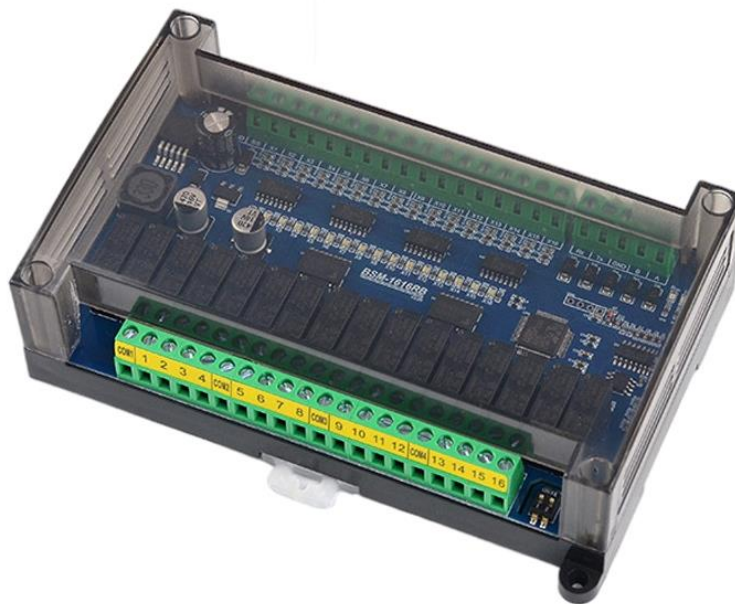


CWT-BK-1216T-SE CWT-BK-1216R-SE Modbus I O Module manual



1 OVERVIEW

Options:

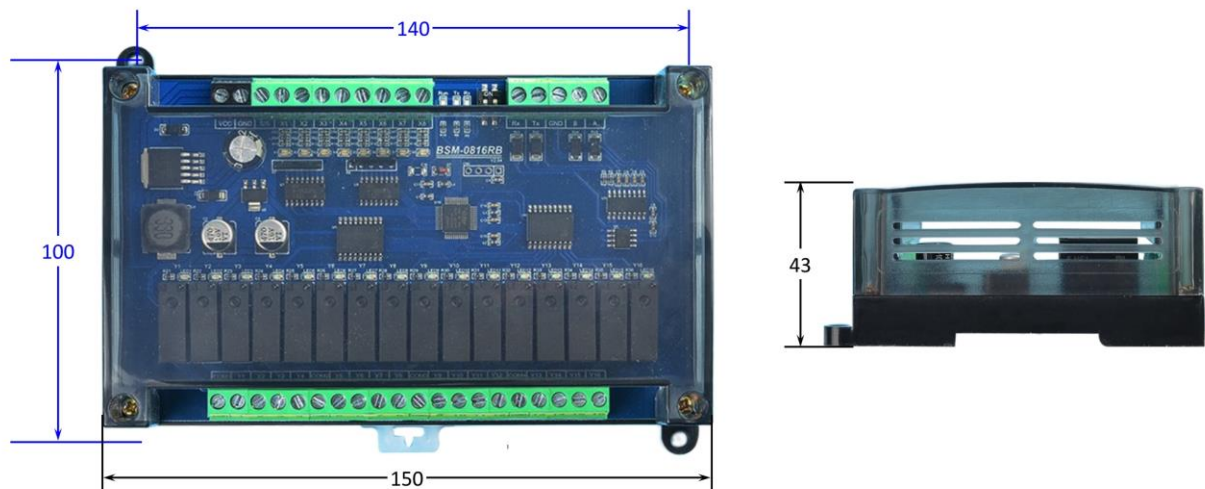
Model	IO Port	Communication Port	Protocol
CWT-BK-1216R-SE	12DI+16DO (relay)	RS485+Ethernet	Modbus RTU, Modbus TCP
CWT-BK-1216T-SE	12DI+16DO (transistor)	RS485+Ethernet	Modbus RTU, Modbus TCP

1.1 Basic Parameter

Power	DC9-48V
Protection	IP20
Installation	DIN rail mounting or screw fixing
Working Environment	-40°C ~ 70°C, 5% ~ 85%RH(non-condensing)

2 INSTALL

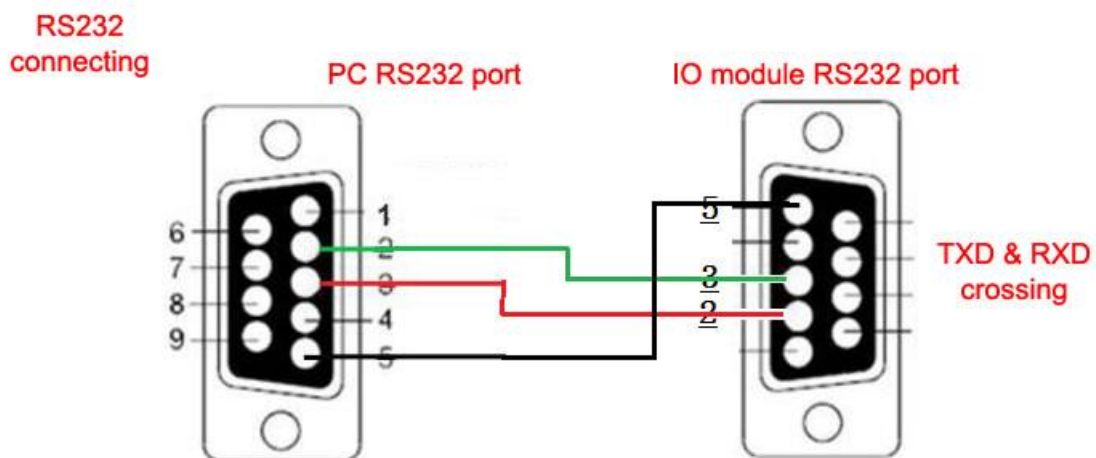
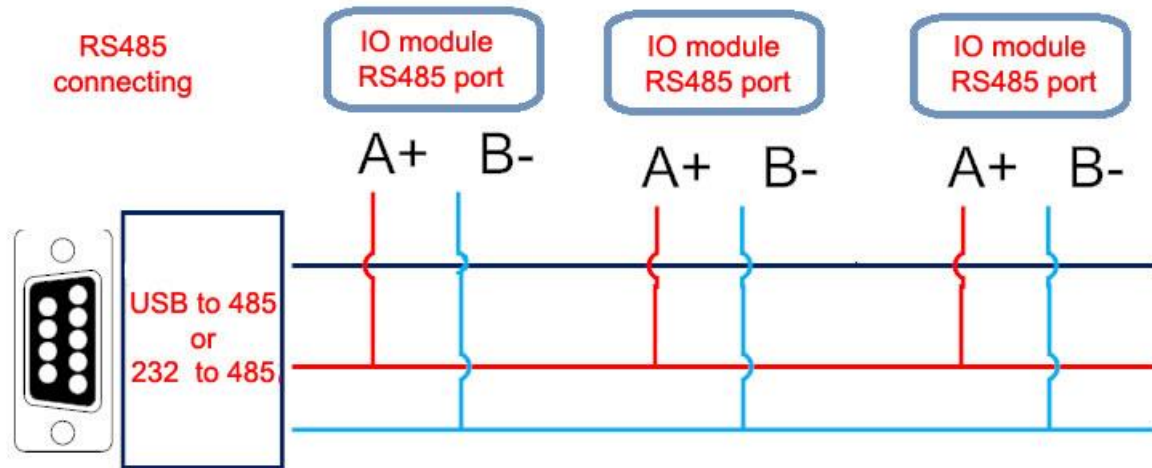
2.1 Size



3 COMMUNICATION PORT

3.1 RS485

Port type	1RS485
Baud rate	1200 ~ 115200, default 9600
Parity	Even, Odd, None
start bit	1 bit
data bits	8 bit
Stopbits	1,2bits
Protocol	MODBUS RTU
default	9600.N.8.1, slave id is 1
Response time	15ms (9600bps), 3ms (115200bps)



3.2 Ethernet

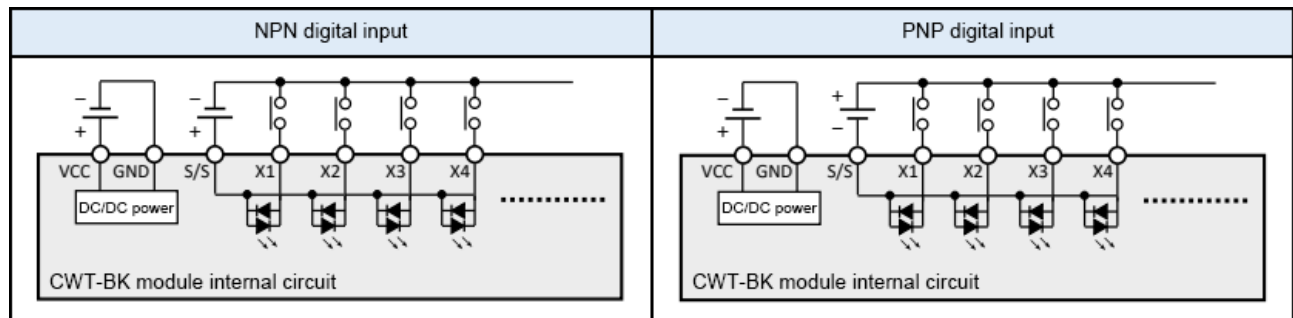
Port type	RJ45
IP address	192.168.1.117
TCP port	500-502
UDP port	5000
Protocol	MODBUS TCP
Bandwidth	10M/100Mbps
Response time	<2ms

4 IO PORT

4.1 Digital input

ON signal level	9-24VD
OFF signal level	0-9VDC

DI wiring diagram

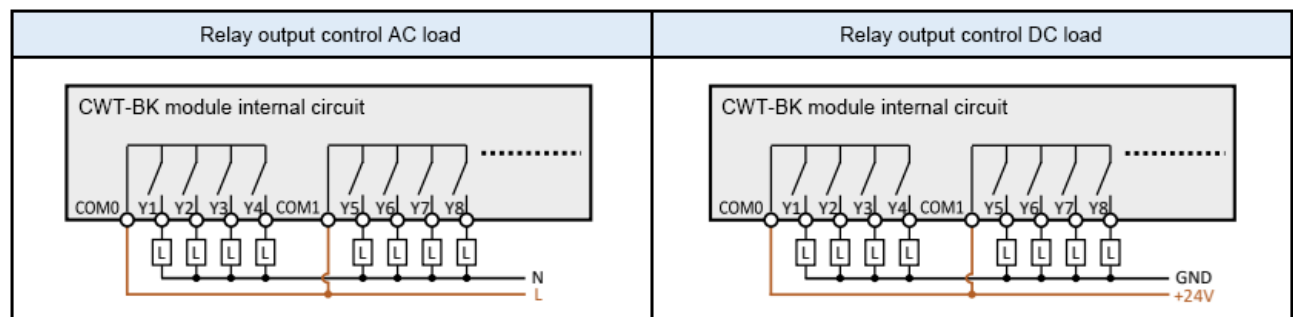


4.2 Digital output

Digital output (relay)

Output type	Relay (NO)
Load current	2A
Response time	<20ms

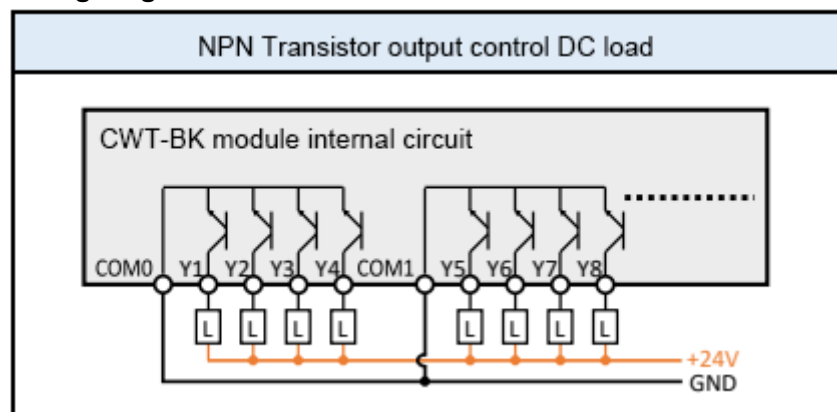
wiring diagram



Digital output (Transistor)

Output type	NPN transistor output
Load current	500mA
Response time	<5ms

wiring diagram



5 MODBUS REGISTER MAP

Parameters	PLC address	Function code	Format	Content	Read/Write
Slave ID	40001	03/06	UINT16	1~255	R/W
Status bit	40002	03/06	UINT16	Bit0: RS232 communication Bit1: RS485 commnnication	R/W
Baud	40003	03/06	UINT16	48: 4800bps 96: 9600bps 192: 19200bps 1152: 115200bps	R/W
Parity	40004	03/06	UINT16	0: none 1: even 2: odd	R/W

IO Port	Register address (hex)	PLC address	Function code	Format	Read/Write
Di0 ~ Di11	0000 ~ 000B	10001~10012	02	UINT16	R
Do0 ~ Do15	0000 ~ 000F	00001~00016	01/05	UINT16	R/W

IO port	Register value	meaning
Di	0	off
	1	on
Do	0	off
	1	on