ET3410 Datasheet

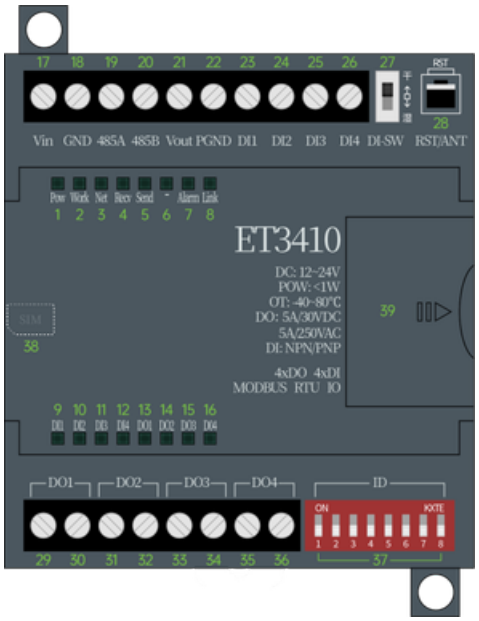
Features

※ Support 4G full Netcom
※ Built-in SMD SIM card, free 8-year tariff
※ Support cascade, expand the number of IO interfaces without induction
※ No configuration required, plug and play
※ Communication delay milliseconds
※ There is no packet loss and no abnormality in high-speed communication
※ The hardware indicator presents the communication status in real time

Specifications

LTE	LTE-FDD	Band1/Band3/Band5/Band8
	LTE-TDD	Band34/Band38/Band39/Band40/Band41
RS485	Number of interfaces	1 way
	Working mode	Master
	Baud rate is supported	115200/9600/4800/2400
DO	Number of interfaces	4-way
	Output type	Relay output
	Relay capacity	5A/30VDC 5A/250VAC
DI	Number of interfaces	4-way
	Enter the type	NPN/PNP/Dry Contact
	Electrical characteristics	Opto-coupling isolation
Electrical parameters	Rated voltage	DC12V，working range DC12~24V
	Rated power	<5W
	Power protection	Anti-static, anti-surge, anti-reverse connection
Environmental parameters	Operating temperature	-40~80℃
	Storage temperature	-40~85℃
	Ambient humidity	10-90% RH（non-condensing）
Mechanical parameters	Size	80*71*63mm
	Weight	150g
	Material	ABS

Interface Description



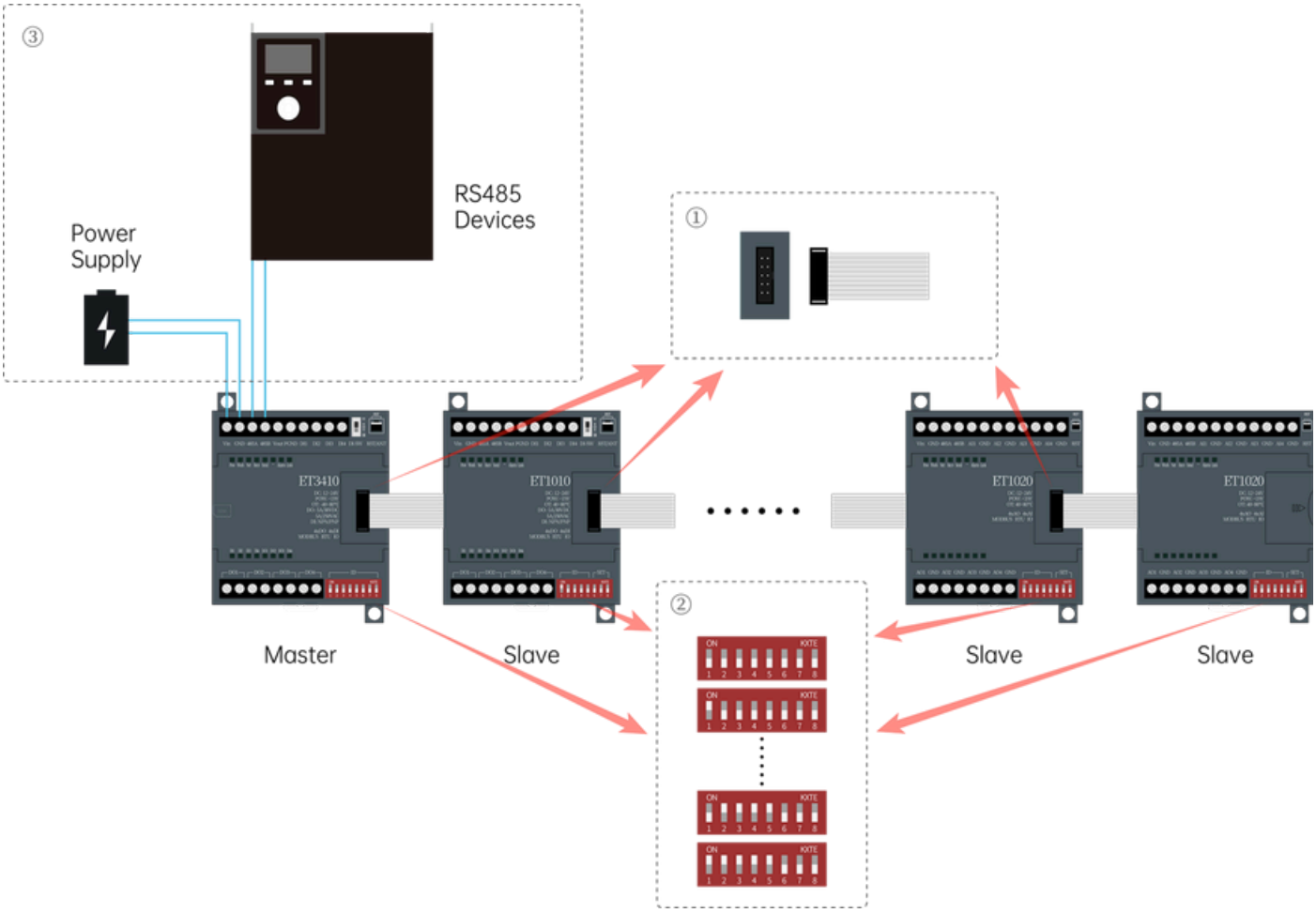
NO	Name	Meaning	NO	Name	Meaning
1	Pow	Power indicator, solid on	21	Vout	The external power supply is positive, and the voltage is equal to the input power supply voltage
2	Work	Card not found: Flashes slowly Card found: Flash PDP Registration Successful: Strobe	22	PGND	The DI signal input is isolated ground
3	Net	The socket connection is successfully lit	23	DI1	DI1 signalinput
4	Recv	Network data reception light	24	DI2	DI2 signalinput
5	Send	Network data sending light	25	DI3	DI3 signalinput
6	--	obligate	26	DI4	DI4 signalinput
7	Alarm	The alarm indicator light and the communication of the cascading device are abnormally always on	27	SW	Dry: Dry Contact/PNPSignal Wet: NPN Signal
8	Link	Connect the indicator light, and the cascading device plugged in is always on	28	RST	Resetbutton
9	DI1	DI indicator	29	DO1	Relay1output
10	DI2	DI indicator	30	DO1	Relay1output
11	DI3	DI indicator	31	DO2	Relay2output
12	DI4	DI indicator	32	DO2	Relay2output
13	DO1	DO indicator	33	DO3	Relay3output
14	DO2	DO indicator	34	DO3	Relay3output
15	DO3	DO indicator	35	DO4	Relay4output
16	DO4	DO indicator	36	DO4	Relay4output
17	Wine	The power input is positive	37	DIP	1-8 indicates the MODBUScommunication address (0~255), and the restarttakes effect
18	GND		38	YES	
19	485A	The power input is negative	39	S	ExternalSIMcard slot
20	485B	RS485-A			S-mount fordownward cascade
		RS485-B			

Easy To Use

① ET3410 can be cascaded with ET1010/ET1020 modules at will, with ET3410 serving as the main station.

② Dial the DIP switch for each ET product to a different position (set the communication address) to avoid communication conflicts.

③ Configure the server address of the ET3410 to communicate with the ET3410 via MODBUS/JSON protocol.



Tips:

The MODBUS communication address is the communication address of the main station

The register addresses are arranged sequentially from 0000H in cascading order

Register Address Table

Register type	Registeraddress	Register properties	Featurecodes are supported	prompt
DO register	0000H~0003H	DO1-DO4	01 (Read) 05 (Write Single) 0F (write multiple)	The first ET1010 module
	0004H~0007H	DO5-DO8		The second ET1010 module
	0008H~000BH	DO9-DO12		The third ET1010 module
	000CH~000FH	DO13-DO16		The fourth ET1010 module
	.....	.....		.....
DI registers	0000H~0003H	DI1-DI4	02 (Read)	The first ET1010 module
	0004H~0007H	DI5-DI8		The second ET1010 module
	0008H~000BH	DI9-DI12		The third ET1010 module
	000CH~000FH	DI13-DI16		The fourth ET1010 module
	.....	.....		.....
AO registers	0000H~0003H	DO1-DO4	03 (read) 06 (Write Single) 10 (write multiple) Unit uA	The first ET1020 module
	0004H~0007H	DO5-DO8		The second ET1020 module
	0008H~000BH	DO9-DO12		The third ET1020 module
	000CH~000FH	DO13-DO16		The fourth ET1020 module
	.....	.....		.....
AI registers	0000H~0003H	DI1-DI4	04 (read) Unit uA	The first ET1020 module
	0004H~0007H	DI5-DI8		The second ET1020 module
	0008H~000BH	DI9-DI12		The third ET1020 module
	000CH~000FH	DI13-DI16		The fourth ET1020 module
	.....	.....		.....
Hold registers	1000H	Version + address	03 (read)	
	1001H	Number of DIs + Number of DOs		
	1002H	Number of AIs + Number of AOs		

Frequently Asked Questions Alert

① Q: Why is the DI data acquisition normal, but the control DO is incorrect?

A: Please check the address code of the cascade module, it cannot be consistent. The address code does not affect data collection, but it does affect downstream control.

② Q: Why does an ET3410 module cascade 3 ET1010 and read 16 DI channels with an error?

A: Please read the 1000H-1002H register data first to determine how many slave IOs are detected by the master module. If it does notmatch the actual situation, you can find the problematic module based on the alarm lamp, and the alarm lamp is alwayson, indicating that the communication of the subordinate module is abnormal.

③ Q: I have8modules,ifthereisacommunicationproblemwiththemiddlemodule,willthesubsequentmodules fail tocommunicate?

A: Yes, the cascade ofmodules is similar to a high-speed rail car, the middle is disconnected, and the high-speed rail head will only pull theremaining carriages forward. The adaptive algorithm of the main module can ensure that anomalies are detectedintime: errors will be replied when abnormal module IOs are requested, and the remaining modules will work stably.

④ Q: I have 4 modules thatare already working normally, and I want to add 2 more, how can I do this?

A: Direct cascade, onlyneed to ensure that the address code is inconsistent, and the main module can be adaptive.

⑤ Q: How many modulescan be cascaded?

A: The default firmwaresupports up to 10, if you have special needs, please feel free to harass customer service.

⑥ Q: Are you consideringlaunching modules with other interface types and adapting protocols to each other?

A: Stay tuned, the answeris yes.

DIP Switch Description

ID	Binary	hexadecimal	Icon	ID	Binary	hexadecimal	Icon
0	00000000	0x00		16	00010000	0x10	
1	00000001	0x01		17	00010001	0x11	
2	00000010	0x02		18	00010010	0x12	
3	00000011	0x03		19	00010011	0x13	
4	00000100	0x04		20	00010100	0x14	
5	00000101	0x05		21	00010101	0x15	
6	00000110	0x06		22	00010110	0x16	
7	00000111	0x07		23	00010111	0x17	
8	00001000	0x08		24	00011000	0x18	
9	00001001	0x09		25	00011001	0x19	
10	00001010	0x0A		26	00011010	0x1A	
11	00001011	0x0B		27	00011011	0x1B	
12	00001100	0x0C		28	00011100	0x1C	
13	00001101	0x0D		29	00011101	0x1D	
14	00001110	0x0E		30	00011110	0x1E	
15	00001111	0x0F		31	00011111	0x1F	

1-8 Set the MODBUS communication address

(Only the first 32 addresses are listed in the preceding table, and subsequent addresses can be set according to the rules in this table.)

Wiring Instructions

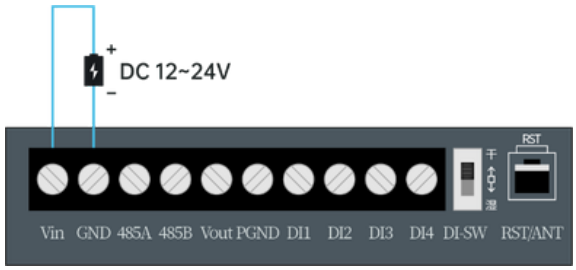
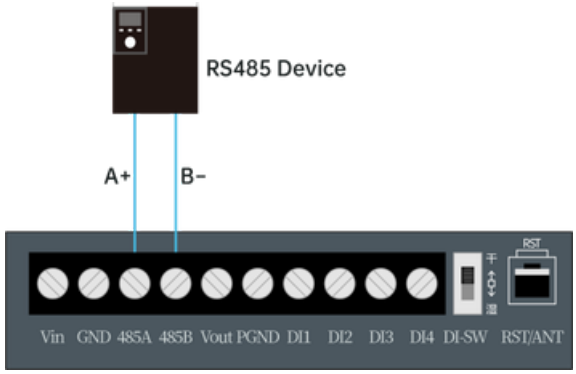
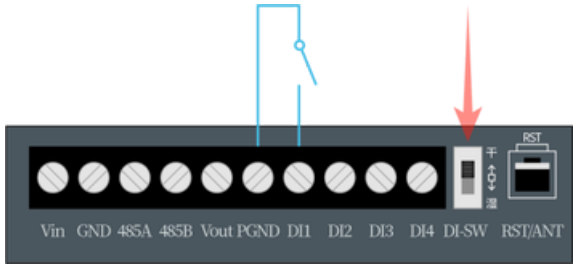


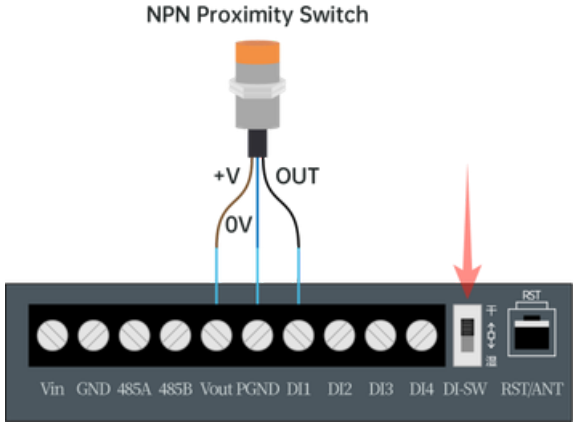
Diagram ofpower wiring



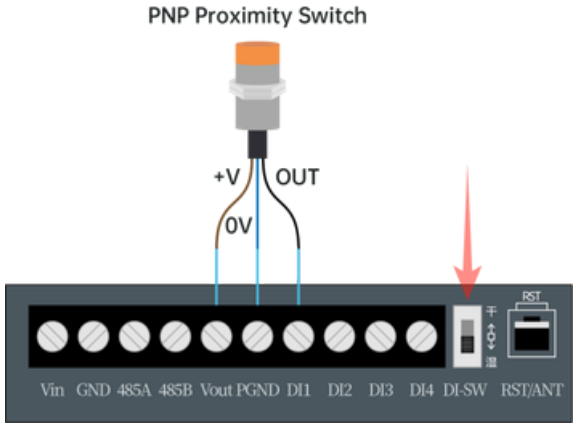
RS485 wiring diagram



DI (dry contact) wiring diagram



DI (NPN) wiring diagram



DI (PNP) wiring diagram

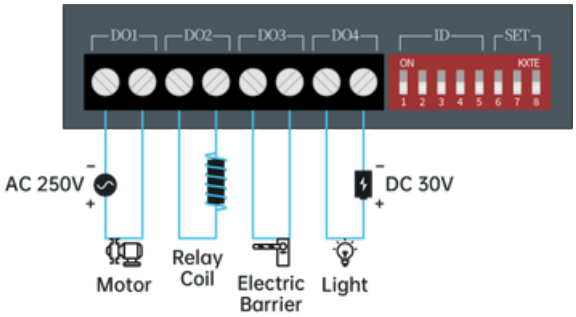


Diagram of DO wiring