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AWT500 Data Communication Gateway Manual

Installation Manual V1.0

Acrel Co., Ltd.

State

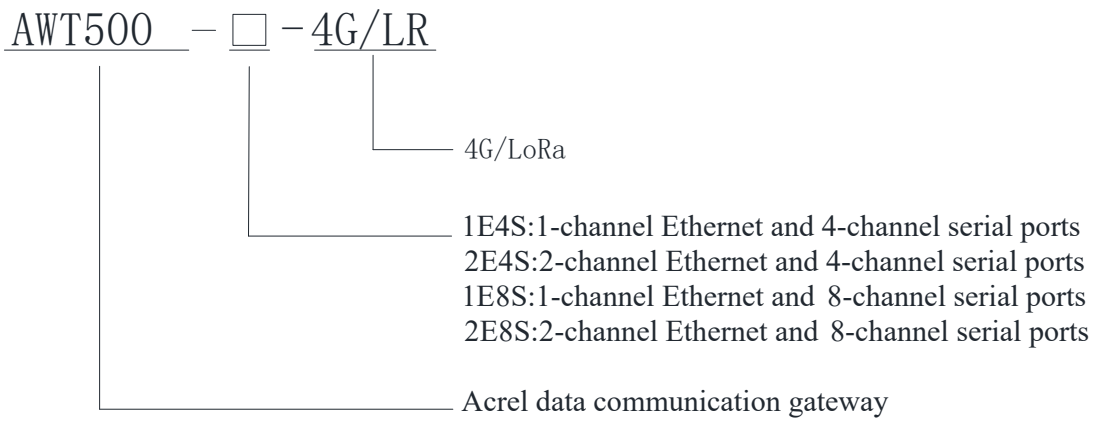
The company reserves the right to modify the product specifications described in the manual without prior notice. Before ordering, please consult your local agent for new specifications of this product.

Catalogue

1、General

The AWT500 data communication gateway is used for data collection and analysis of various terminal devices. Realize the monitoring, control and calculation of the equipment, establish communication links between the system and the equipment, and realize two-way data communication. Real-time monitoring and timely discovery of abnormal data, and its own logical judgment according to user rules, greatly saving manpower and communication costs.

2、Model



3、Function

(1) Large-capacity storage, support break-point resume

(2) Supporting management tools to facilitate system configuration and maintenance

(3) Powerful communication capabilities, support up to 8 serial ports, LoRa, two Ethernet, 4G

(4)Comes with switch quantity and analog quantity input

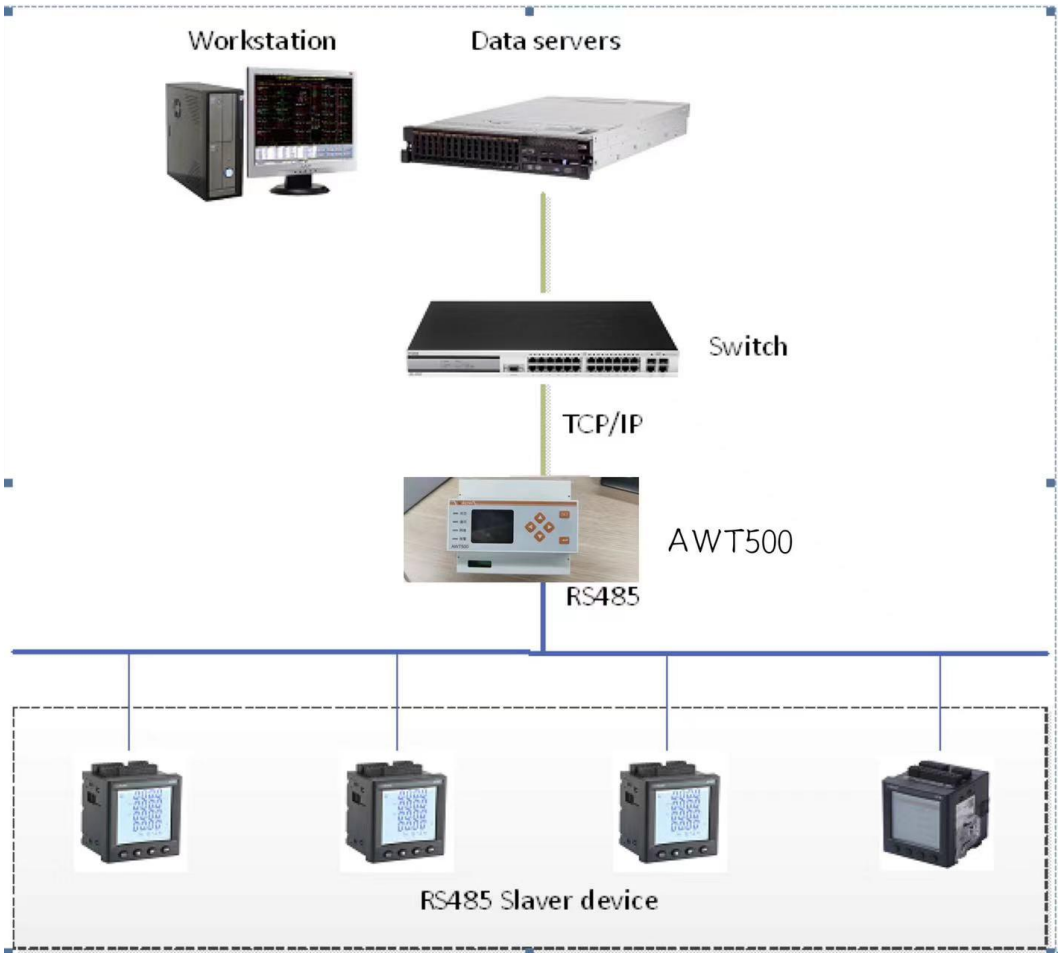
(5) 1.8-inch LCD display and buttons

(6) Support a variety of mainstream communication protocols of the Internet of Things

(7) Support data logic operation and processing

4、Application

The AWT500 proactively collects data from onsite terminals, analyzes it, and uploads it to the local system or cloud system through various communication modes. In this way, data can be remotely connected to the network over wireless.



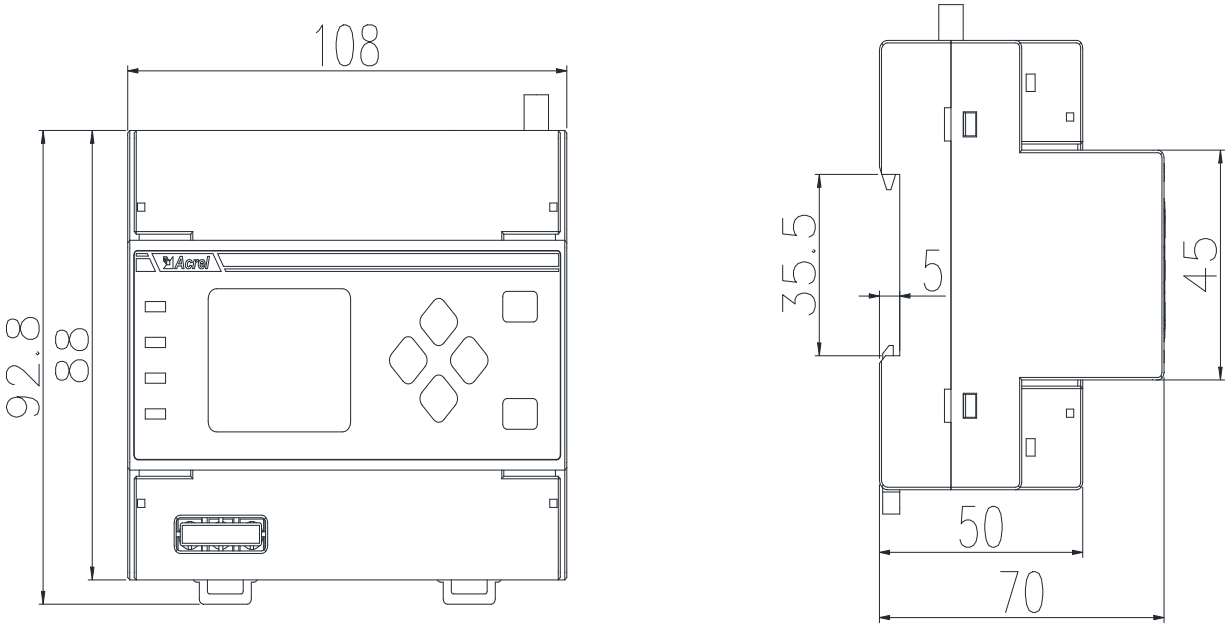
5、Technical parameters

Appearance			
Interface	RS485：terminals AI/DI/DO: terminals		
Power	220V AC terminals		
Dimension	6P（108mmX87.75mmX70mm）din rail，flame retardant ABS material		
Communication interface			
Ethernet	10M/100M*（1/2），electrical isolation		
Serial port	RS485*（4/8）：485A、485B、GND，electrical isolation		
Parameters of serial port			
Baud rate	1200~115200bps	Verification	None, odd, even
Data bits	7～8 bits	Flow control	No flow control
Software			
IP	IPV4、IPV6		
Protocol	TCP、UDP、HTTP、DHCP		
Configuration method	Windows desktop、WEB browser		

Communication method	TCP/IP direct communication、RS485、LORA
Communication protocol	Modbus RTU、Modbus TCP、MQTT
Firmware upgrade	Windows desktop、WEB browser
Operating mode	
TCP Server, TCP Client, UDP Server, UDP Client	
Power requirements	
Power	AC 85-265V
Environmental requirements	
Operating temperature	-10℃~+55℃
Storage temperature	-40℃～+85℃
Humidity range	<95%RH，no condensation

6、Installation and wiring

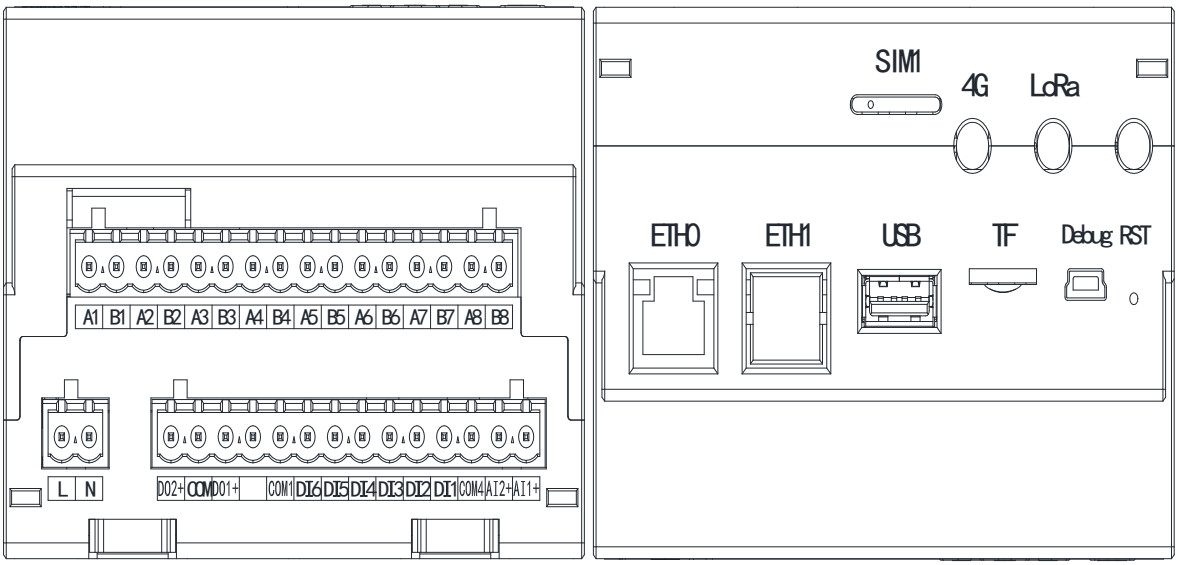
6.1 Dimension



6.2 Installation

AWT500 data communication gateway adopts 35mm standard rail installation method.

6.3 Wiring



7、Definition of panel light

Each status indicator should be marked with Chinese characters for its function. The color and indication status of the indicator are as follows:

Status indicator (green): fast flashing (normal operation), slow flashing or no light (abnormal state)

Communication indicator (green): flashing (communicating with the terminal device)

Network indicator (red): always on (the network connection is normal), fast flashing (communicating with the platform), slow flashing (connecting to the network)

Alarm indicator (red): always on (fault occurs), off (no fault occurs)

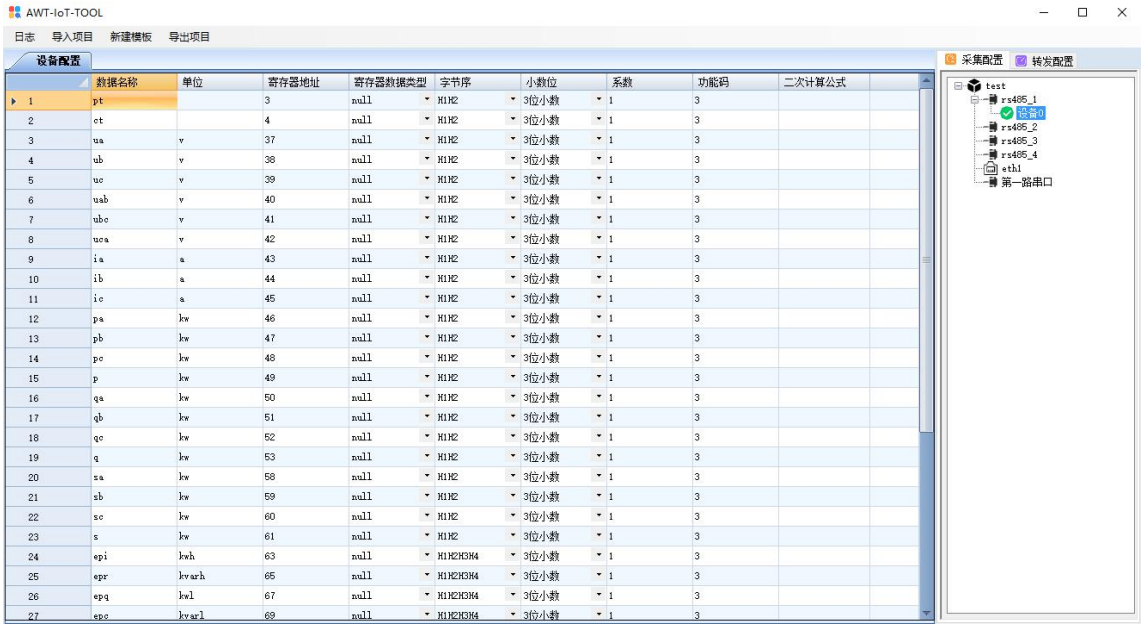
8、User configuration

Use configuration software to generate configuration document and import them into the device. (For details, please refer to the relevant configuration documents)

New template:

Configure port parameters:

Device parameter collection list:



	数据名称	单位	寄存器地址	寄存器数据类型	字节序	小数位	系数	功能码	二次计算公式
1	pt		3	null	H1H2	3位小数	1	3	
2	ct		4	null	H1H2	3位小数	1	3	
3	ua	v	37	null	H1H2	3位小数	1	3	
4	ub	v	38	null	H1H2	3位小数	1	3	
5	uc	v	39	null	H1H2	3位小数	1	3	
6	uab	v	40	null	H1H2	3位小数	1	3	
7	ubc	v	41	null	H1H2	3位小数	1	3	
8	uca	v	42	null	H1H2	3位小数	1	3	
9	ia	a	43	null	H1H2	3位小数	1	3	
10	ib	a	44	null	H1H2	3位小数	1	3	
11	ic	a	45	null	H1H2	3位小数	1	3	
12	pa	kw	46	null	H1H2	3位小数	1	3	
13	pb	kw	47	null	H1H2	3位小数	1	3	
14	pc	kw	48	null	H1H2	3位小数	1	3	
15	p	kw	49	null	H1H2	3位小数	1	3	
16	qa	kw	50	null	H1H2	3位小数	1	3	
17	qb	kw	51	null	H1H2	3位小数	1	3	
18	qc	kw	52	null	H1H2	3位小数	1	3	
19	q	kw	53	null	H1H2	3位小数	1	3	
20	sa	kw	58	null	H1H2	3位小数	1	3	
21	sb	kw	59	null	H1H2	3位小数	1	3	
22	sc	kw	60	null	H1H2	3位小数	1	3	
23	s	kw	61	null	H1H2	3位小数	1	3	
24	epi	kwh	63	null	H1H2H3H4	3位小数	1	3	
25	epr	kvarh	65	null	H1H2H3H4	3位小数	1	3	
26	epq	kwl	67	null	H1H2H3H4	3位小数	1	3	
27	epc	kvarl	69	null	H1H2H3H4	3位小数	1	3	

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