

Quick operation manual of DIN meter installation

Thank you for your choose product of Zhejiang CHINT instrument co., LTD., in order to facilitate your safe and correct use of the instrument, please read this manual carefully and be sure to pay attention to when using the following:

- **The instrument must be conducted by professional installation and maintenance ;**
- **Before the operation of the instrument wiring must be cut off the input signal ;**
- **Always use the appropriate voltage detection device is used to determine each part instrument no voltage ;**

The following conditions will lead to abnormal device damage or device work :

- **Instrument variable than setting is not correct ;**
- **Voltage, current, frequency, beyond ;**
- **Current or voltage polarity is not correct ;**
- **Connection terminals not according to requirements ;**

1. Technical parameters

Table 1

Technical parameters		Index			
Input signal	Voltage	Connection mode	One-phase		
		Rated value (Un)	One-phase	AC230V	
		Working voltage	0.9Un—1.1Un		
		Limiting operating voltage	0.8 Un—1.15Un		
		Consumption	≤10VA/ 2W		
		Resistance	> 500kΩ		
	Current	Rated value	Direct access	AC 5(60)A	
			Mutual inductance access	AC */100mA	
		Current overload	Direct access to the instrument: instant: 30Imax, Rated frequency half cycle time;		
		Consumption of the current circuit	≤2VA		
Frequency	Resistance	<20mΩ			
		Input range	45Hz ~ 65Hz		
Output	Display		Block code LCD display		
	Active energy	Class 1S	resolving power 0.01kWh		
	Pulse constant	Direct access to the instrument	Active 800 imp/kWh,		

		Pulse signal output	Supply active energy optical signal and optocoupler collector open-circuit electrical signal impulse output, pulse length:80±16ms。
	Auxiliary function	Protocol	Supported MODBUS RTU communication protocol, communication baud rate 2400 BPS, 4800 BPS, 9600 BPS can be set, the default 9600 BPS。

Note 1: mark does project is optional, as shown in the table 4.

Note 2: the other performance index, indoor table reference IEC 62053 - 21 requirements.

Note 3: instrument applies only to its corresponding technical performance and technical parameters.

2. Wiring instructions :

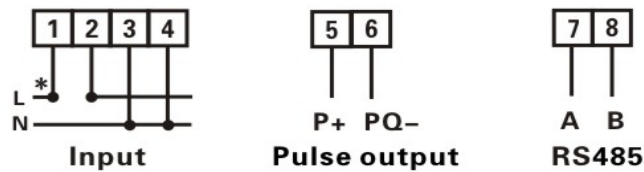


Figure 1 Direct access to the instrument

Voltage signal wire

3-----Un(Voltage input zero)

4-----Un(Voltage input zero)

Current signal wire

1 -----I*(Current input)

2 -----I (Current output)

RS485 communication line

7-----A (RS485 A end)

8-----B (RS485 B end)

Energy pulse output line

5--- output high end of active energy pulse

6----- output low end of active energy pulse

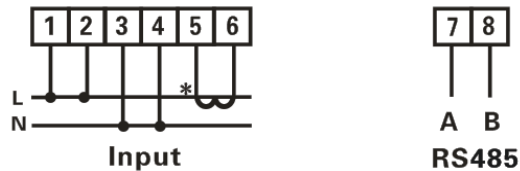


Figure 2 Mutual inductance access to the instrument

Voltage signal wire

1 -----UL(Current input)

2 ----- UL (Current output)

3-----UN(Voltage input zero)

4-----UN(Voltage input zero)

Current signal wire

5 -----I*(Current input)

6 -----I (Current output)

RS485 communication line

7-----A (RS485 A end)

8-----B (RS485 B end)

一、 Installation size

Table 2

Model	Shell size (width N×length M×depth D)	Guide rail mounting dimensions
DDSU666	36mmx89mmx74mm	35mm

二、 Communication protocol

Communication protocol accord with DLT (645-645 multi-function watt-hour meter communication

protocol, support the communication address, id code, speaking, reading and writing (current) positive active power, voltage data blocks, instantaneous active power current data block, block, power grid frequency, power factor data block. Support AAAAAAAAAAAAAA radio and read data and table number.

DL/T 645-2007 protocol switching to the ModBus RTU communication protocol data frame is as follows:

FE FE FE FE 68 xx xx xx xx xx xx 68 14 0E 33 33 35 3D 35 33 33 33 33 33 33 33 33 CS 16

Note: xx xx xx xx xx xx for the table address; CS to check code.

Communication parameters description: this instrument provides A standard RS485 communication interface and ModBus RTU communication protocol (see appendix A), communication can read or modify the parameters of the information, as shown in table 3.

Table 3 Communication parameter information

Parameter address	Parameter code	Instruction of the parameters	Type of data	Length of data Word	Read&write attributes
0000H	UCode	Programming password code	16-bit with symbols	1	R/W
0001H	REV.	Reserved, actual read is the version number	16-bit with symbols	1	R
0002H	ClrE	Electric energy zero clearing CLr.E(1:zero clearing)	16-bit with symbols	1	R/W
0003H	RESERVED	RESERVED	16-bit with symbols	1	
0004H	RESERVED	RESERVED	16-bit with symbols	1	
0005H	ChangeProtocol	Protocol changing-over	16-bit with symbols	1	R/W
0006H	Addr	Communication address Addr	16-bit with symbols	1	R/W
0007H	RESERVED	RESERVED	16-bit with symbols	1	
0008H	RESERVED	RESERVED	16-bit with symbols	1	
0009H	RESERVED	RESERVED	16-bit with symbols	1	
000AH	RESERVED	RESERVED	16-bit with symbols	1	
000BH	Meter type	Meter type	16-bit with symbols	1	R
000CH	BAud	Communication baud rate bAud	16-bit with symbols	1	R/W
000DH	RESERVED	RESERVED	16-bit with symbols	1	
000EH	RESERVED	RESERVED	16-bit with symbols	1	
000FH	RESERVED	RESERVED	16-bit with symbols	1	
0010H	RESERVED	RESERVED	16-bit with	1	

			symbols		
Electric quantity of the secondary side					
2000H	U	Voltage	single precision floating decimal	2	R
2002H	I	Current	single precision floating decimal	2	R
2004H	P	Conjunction active power , the unit is KW	single precision floating decimal	2	R
2006H	Q	Conjunction reactive power , the unit is Kvar	single precision floating decimal	2	R
2008H	RESERVED	RESERVED	single precision floating decimal	2	R
200AH	PF	Conjunction power factor	single precision floating decimal	2	R
200CH	RESERVED	RESERVED	single precision floating decimal	2	R
200EH	Freq	Frequency	single precision floating decimal	2	R
2010H	RESERVED	RESERVED	single precision floating decimal	2	R
Electrical data of the secondary side					
4000H	Ep	Active in electricity	single precision floating decimal	2	R
400AH	-Ep	Reverse in electricity	single precision floating decimal	2	R

Change Protocol such as protocol switching, data for 2 for Modbus RTU protocol -, data to 1 for DL/T 645-2007 ;

The CLR. E power reset write 1 removal of total power ;

BAud rate:

1:2400bps; 2:4800bps; 3:9600bps ;

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Publication date: April, 2016