

Modbus Communication Protocol for DZS100-4P

1. Communication Protocol Address

For Modbus Communication Protocol, when the last three digits of the bar code are less than 256(decimal), the last three digits are the communication protocol address for the meter. For example, if the bar code is 170510201**023**, the communication protocol address is **023**.

While when the last three digits of the bar code are more than or equal to 256(decimal), the last three digits of the bar code should be converted into hexadecimal, whose last two digits are the Modbus communication protocol address. For example, if the bar code is 170510300**920**, the communication protocol address is **98(hexadecimal)/152(decimal)**.

2. Definition and Operation for Function Code

Function Code	Definition	Operation
03	Read Registers Only	Read single or multiple registers
06	Write Single Register	Write hexadecimal single register
10	Write Continuous Multiple Registers	Write hexadecimal continuous multiple registers

3. Register Table for DZS100-4P

3.1 Read-only Parameters Zone (Function Code 03H)

Address (Decimal)	Address (Hexadecimal)	Function Code	Register Type	Parameters	Remark
00	0000	03H	Read Only	Combined Active Energy	0.01kWh Negative number as complement
01	0001	03H	Read Only		
02	0002	03H	Read Only	Import Active Energy	0.01kWh
03	0003	03H	Read Only		
04	0004	03H	Read Only	Export Active Energy	0.01kWh
05	0005	03H	Read Only		
6	0006	03H	Read Only	Voltage	0.1V

7	0007	03H	Read Only	Current	0.001A
8	0008	03H	Read Only		
9	0009	03H	Read Only	Active Power	0.0001kW Negative number as complement
10	000A	03H	Read Only		
11	000B	03H	Read Only	Power Factor	0.001kWh Negative number as complement
12	000C	03H	Read Only	Frequency	0.01Hz

3.2 Read/Write Parameters Zone (Function Code 03H, 06H, 10H)

Address (Decimal)	Address (Hexadecimal)	Register Type	Parameters	Remark
500	01F4	Read/ Write	Second	Decimal
501	01F5	Read/ Write	Minute	Decimal
502	01F6	Read/ Write	Hour	Decimal
503	01F7	Read/ Write	Week	Decimal
504	01F8	Read/ Write	Day	Decimal
505	01F9	Read/ Write	Month	Decimal
506	01FA	Read/ Write	Year	Decimal
507	01FB	Read/ Write	Communication Address	Hexadecimal
508	01FC	Read/ Write	PT Ratio	Hexadecimal
509	01FD	Read/ Write	CT Ratio	Hexadecimal
550	0226	Read/ Write	Baud Rate (0x08:1200; 0x10:2400; 0x20:4800; 0x40:9600, 0x80:19200)	Hexadecimal
551	0227	Write	Zero Energy (0000)	Hexadecimal