

Register address table reconstruction								
Register class	Register address (D)	Register address (H)	Number of registers	Register properties	register type	Register value range	Supported function codes	
<b>Southbound Interface Register</b>								
Coil 0x00	do	00001	0x0000	1	D01 switch output	read/write	0x0000/0xFF00 (0x05 function code) 0_bit/1_bit (0x01, 0x0F function code)	0x01 (read coil) 0x05 (write a single coil) 0x0F (write multiple coils)
		00002	0x0001	1	D02 switch output	read/write		
		00003	0x0002	1	D03 switch output	read/write		
		00004	0x0003	1	D04 switch output	read/write		
contact 0x01	DI	10001	0x0000	1	D11 switch input	read-only	0_bit/1_bit	0x02 (read discrete value)
		10002	0x0001	1	D12 switch input	read-only		
		10003	0x0002	1	D13 switch input	read-only		
		10004	0x0003	1	D14 switch input	read-only		
		10005	0x0004	1	D15 switch input	read-only		
		10006	0x0005	1	D16 switch input	read-only		
input device	AI	30001	0x0000	1	A11 input value	read-only	unsigned short, unit (V/mA)	0x04 (read input register)
		30002	0x0001	1	A12 input value	read-only		
		30003	0x0002	1	A13 input value	read-only		
		30004	0x0003	1	A14 input value	read-only		
	P.I.	30529	0x0210	1	P11 pulse count	read-only	0-65535	0x04 (read input register)
		30530	0x0211	1	P12 pulse count	read-only		
<b>Interface Configuration Register</b>								
holding register 0x04	DO settings	0x1000	1	D0 active reporting switch	read/write	0xFFFF on/0x0000 off	0x03 (read holding register) 0x06 (write single register) 0x10 (write multiple registers)	
		0x1001	1	D01 output hold time (milliseconds)	read/write	0x0001 hold 1, 0x0002 do not hold		
		0x1002	1	D02 output hold time (milliseconds)	read/write	0.300-65535		
		0x1003	1	D03 output hold time (milliseconds)	read/write	0.300-65535		
		0x1004	1	D04 output hold time (milliseconds)	read/write	0.300-65535		
	DI settings	0x1100	1	D1 active reporting mode	read/write	0x0000 off/0x0001 DIY/0xFFFF default	0x03 0x06 0x10	
		0x1101	1	D1 reporting interval	read/write	0-65535		
	PI settings	0x1180	1	P11 cleared	write	0	0x03 0x06 0x10	
		0x1181	1	P12 cleared	write	0		
	AI settings	0x1200	1	A1 active reporting	read/write	0xFFFF on/0x0000 off	0x03 0x06 0x10	
		0x1201	1	A1 active reporting cycle	read/write	0-65535		
		0x1202-0x1206	9	A11 upper and lower limit and threshold reporting	read/write	Register 1: Lower limit, 0-65535 Register 2: Upper limit, 0-65535		
		0x1207-0x120B	9	A12 upper and lower limit and threshold reporting	read/write	Register 3: within threshold 0x0001/outside threshold 0x0000/		
		0x120C-0x1210	9	A13 upper and lower limit and threshold reporting	read/write	off register 0x0000		
	AI0 settings	0x1300	/	/	/	/	0x03 0x06 0x10	
		<b>RS485 setting</b>						
	RS485 setting	0x1400	1	USART mode	read/write	Host mode 0x0001   Slave mode 0x0002	0x03 0x06 0x10	
		0x1401-0x1403	3	USART parameters	read/write	Byte 4: Stop bits 0x01/0x02/0x03 1/1.5/2 Byte 5: Data bits 0x01/0x02 8/7 Byte 6: check digit 0x01/0x02/0x03 NONE/ODD/EVEN		
		0x1404-0x140D	10	Serial port heartbeat 1	read/write	Register 1: Indicates time, unit S, 0-65535 Register 2: Heartbeat packet length		
		0x140E-0x1417	10	Serial heartbeat 2	read/write	Register 3-10: Heartbeat Packet Contents		
		0x1418-0x1421	10	Serial heartbeat 3	read/write			
	local logic	0x1800	10	conditional control 1	read/write	Register 1: 0x0000 off/0x0001 forward follow/0x0002 reverse follow/0x0003 analog follow/0x0004 greater than or equal/0x0005 less than or equal	0x03 0x06 0x10	
		0x180A	10	conditional control 2	read/write	Register 2: input register 0x0000-0xFFFF register 3: 0000 no output/0001 relay output/0002 analog output register 4: output register 0x0000-0xFFFF		
		0x1814	10	conditional control 3	read/write	Register 5: 0000 No Action 0x0001 Open/0x0002 Close/0x0003 Rollover Register 6-7: Compare Threshold		
0x181E		10	conditional control 4	read/write	Register 8-9: Reserved			
0x1828		10	conditional control 5	read/write				
0x1832		10	conditional control 6	read/write				
0x183C		10	conditional control 7	read/write				
0x1846		10	conditional control 8	read/write				
Device networking logic	0x1900	10	conditional control 1	read/write	Register 1: remote modbus device address	0x03 0x06 0x10		
	0x190A	10	conditional control 2	read/write	Register 2: 0x0000 off/0x0001 positive follow/0x0002 reverse follow/0x0003 analog follow/0x0004 greater than or equal/0x0005 less than or equal			
	0x1914	10	conditional control 3	read/write	Register 3: input register 0x0000-0xFFFF register 4: 0000 no output/0001 relay output/0002 analog output register 5: output register 0x0000-0xFFFF			
	0x191E	10	conditional control 4	read/write	Register 6: 0000 no action/0x0001 open/0x0002 close/0x0003 flip			
	0x1928	10	conditional control 5	read/write				
	0x1932	10	conditional control 6	read/write				
	0x193C	10	conditional control 7	read/write				
	0x1946	10	conditional control 8	read/write				
<b>Device Attribute Register</b>								
holding register 0x04	system command	0x2000	1	Device MODBUS address	read/write	1-247, default 0555	0x03 0x06 0x10	
		0x2001-0x2008	8	DEVID	read-only	16 digit ID		
		0x2009-0x2012	10	Device name	read-only	String 0x00 terminator		
		0x2013	1	Device protocol	read-only	0x0112 means version V1.1.2		
		0x2014	1	System command	read-only	0x0001 restart/0x0002 reset/0x0003 upgrade-IART/0x0004 upgrade-CLOUD		
		0x2015	1	Active report data trends	read and write	The first byte indicates Modbus TCP, and the second byte indicates Modbus RTU bit by bit: RS485 report/TE report/RS485 report/ORA report		
		0x2016	1	super serial port	read and write	0x0001 (enter super serial port) 0x0002 (enter serial port configuration) 0x0003 (open web configuration)		
		0x2017	1	Networking mode	read and write	0xFFFF(open) 0x0000(close)		
		0x2018-0x2021	10	Networking_group serial number	read and write	String 0x00 terminator, only alphanumeric combinations allowed		
		0x2022-0x202B	10	Networking_group password	read and write	String 0x00 terminator, only alphanumeric combinations allowed		
0x202C	1	Networking_Group Type	read and write	0x0001(A)0x0002(B)				
<b>ethernet register</b>								
basic information		0x4000	1	IP activation method	read/write	0x0001 DHCP/0x0002 Static IP	0x03 0x06 0x10	
		0x4001-0x4002	2	ip address	read/write	192.168.1.100		
		0x4003-0x4004	2	subnet mask	read/write	255.255.255.255		
		0x4005-0x4006	2	gateway	read/write	192.168.1.1		
		0x4007-0x4008	2	DNS server	read/write	192.168.1.1		
		0x4009-0x400B	3	MAC address	read/write	MAC address		
		0x400C	1	Enable as a northbound interface	read/write	0x0000 (enable north bound)/0xFFFF (enable south)		
		SOCKET1		0x4200	1	SOCKET enable		read/write
0x4201	1			remote server ip address	read/write	0x0001 TCP Client/0x0002 TCP Server/0x0003 HTTP/0x0004 MQTT		
0x4202-0x4222	33			remote server IP/domain name	read/write	ends with 0x00		
0x4223	1			remote server port	read/write	0-65535		
0x4224-0x428A	103			remote server path type	read/write	Register 1: 0x0001 cloud forwarding (DEVID+PASSWORD)/0x0002 custom registration		
	remote server path			read/write	Register 2: 0x0001 connection sending/0x0002 data carrying			
	remote server path			read/write	Register 3: Length 1 Register 4-13: Register Packet Contents			
	remote server path			read/write	Register 1: 0x0001 on/0x0002 off			
0x428B-0x4297	13			heartbeat packet time, unit S	read/write	Register 2: 0-65535		
	heartbeat packet content			read/write	Register 3: Length 1 Register 4-13: Heartbeat Packet Contents			
	heartbeat packet content	read/write						
	heartbeat packet content	read/write						
SOCKET2		0x4300	1	SOCKET enable	read/write	0xFFFF(open) 0x0000(close)	0x03 0x06 0x10	
		0x4301	1	remote server ip address	read/write	0x0001 TCP Client/0x0002 TCP Server/0x0003 HTTP/0x0004 MQTT		
		0x4302-0x4322	33	remote server IP/domain name	read/write	ends with 0x00		
		0x4323	1	remote server port	read/write	0-65535		
		0x4324-0x438A	103	remote server path type	read/write	Register 1: 0x0001 cloud forwarding (DEVID+PASSWORD)/0x0002 custom registration		
remote server path	read/write	Register 2: 0x0001 connection sending/0x0002 data carrying						
remote server path	read/write	Register 3: Length 1 Register 4-13: Register Packet Contents						
remote server path	read/write							

keep register	device 0x04			heartbeat packet size		read/write	Register 1: 0x0001 on/0x0002 off
		0x438B-0x4397	13	heartbeat packet time, unit 5	heartbeat packet content	read/write	Register 2: 0-65535
SOCKET3		0x4400	1	SOCKETenable	read/write		0xFFFF(open)0x0000(close)
		0x4401	1	use of communication	read/write		0x0001 TCP Client/0x0002 TCP Server/0x0003 HTTP/0x0004 MQTT
		0x4402-0x4422	33	Remote server IP/domain name	read/write		ends with 0x00
		0x4423	1	remote server port	read/write		0-65535
		0x4424-0x448A	103	Registry address size	read/write	Register 1: 0x0001 cloud forwarding (DEVID+PASSWORD)/0x0002 custom registration	0x03 0x06 0x10
				Registry address location	read/write	Register 2: 0x0001 connection sending/0x0002 data carrying	
				Defines the content of the registration package	read/write	Register 3: Length 1 Register 4: 13 Register Packet Contents	
		0x448B-0x4497	13	heartbeat packet size	read/write	Register 1: 0x0001 on/0x0002 off	0x03 0x06 0x10
				heartbeat packet time, unit 5	read/write	Register 2: 0-65535	
				heartbeat packet content	read/write	Register 3: Length 1 Register 4: 13 heartbeat Packet Contents	
SOCKET4		0x4500	1	SOCKETenable	read/write		0xFFFF(open)0x0000(close)
		0x4501	1	use of communication	read/write		0x0001 TCP Client/0x0002 TCP Server/0x0003 HTTP/0x0004 MQTT
		0x4502-0x4522	33	Remote server IP/domain name	read/write		ends with 0x00
		0x4523	1	remote server port	read/write		0-65535
		0x4524-0x458A	103	Registry address size	read/write	Register 1: 0x0001 cloud forwarding (DEVID+PASSWORD)/0x0002 custom registration	0x03 0x06 0x10
				Registry address location	read/write	Register 2: 0x0001 connection sending/0x0002 data carrying	
				Defines the content of the registration package	read/write	Register 3: Length 1 Register 4: 13 Register Packet Contents	
		0x458B-0x4597	13	heartbeat packet size	read/write	Register 1: 0x0001 on/0x0002 off	0x03 0x06 0x10
				heartbeat packet time, unit 5	read/write	Register 2: 0-65535	
				heartbeat packet content	read/write	Register 3: Length 1 Register 4: 13 heartbeat Packet Contents	
MQTT		0x4900	1	keep alive	read/write		30-1200
		0x4901	1	clean session	read/write		0xFFFF clear/0x0000 keep, currently not supported
		0x4902-0x491F	30	ClientID	read/write		ends with 0x00
		0x4920-0x493D	30	USERNAME	read/write		ends with 0x00
		0x493E-0x495B	30	PASSWORD	read/write		ends with 0x00
		0x495C-0x498D	50	Subscribe to TOPIC1 data downlink	read/write		Default 0x00, follow up support 0x01
		0x498E-0x49BF	50	Subscribe to TOPIC2 data downlink	read/write		Default 0x00, follow up support 0x01
		0x49C0-0x49F1	50	Publish TOPIC1 (data uplink, active uplink)	read/write		Default 0x00, follow up support 0x01
		0x49B6-0x4923	50	Publish TOPIC2 (data uplink, command back)	read/write		Default 0x00, follow up support 0x01